



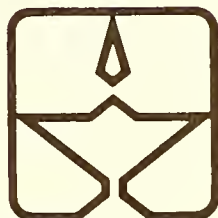
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The 11th Annual

H. CARL ROWLAND LIBRARY
200 South Tryon Street, Suite 1100
Charlotte, North Carolina 28202

HEALTH PLANNING SEMINAR



May 9-10, 1984
Sheraton Center
Charlotte, North Carolina

**HEALTH SCIENCES LIBRARY
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F O R E W O R D

The H. Carl Rowland Memorial Library, located in the offices of The Duke Endowment, was established October 22, 1970, in memory of H. Carl Rowland, who for many years was associated with The Duke Endowment as Director of the Planning and Design Service. The Library operates as a tax-exempt public foundation and was created by means of contributions from his many friends concerned about health facility planning in North Carolina and South Carolina.

Although the H. Carl Rowland Memorial Library was established primarily for the use of persons interested in and involved in the planning and design of health care facilities in North Carolina and South Carolina, the use of the Library is open to all. Publications may be secured for a three-week period by writing, telephone, or visiting the Library. Upon request, the lending period for each publication borrowed may be extended by one week. Borrowers are responsible for the expense of returning materials, and it is suggested that the Library be visited when feasible.

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1984

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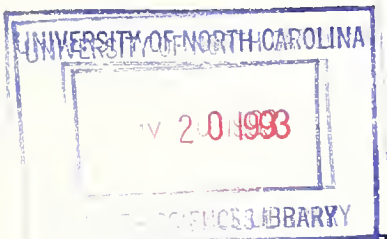
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T H E P R O G R A M C O M M I T T E E
F O R T H E 1 9 8 4 S E M I N A R

Edward L. Walls, Jr., DBA, Chairman
Charles L. Hite
Jeffrey J. Lefko
J. Albert McNab
S. Arnold Nunnery

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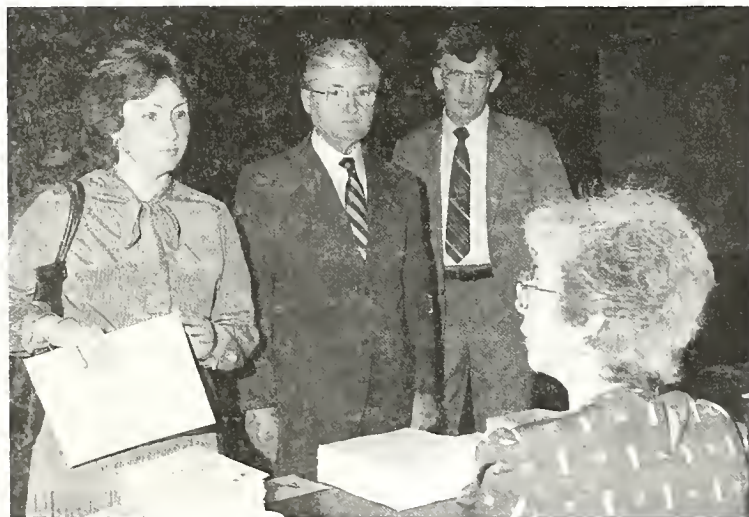
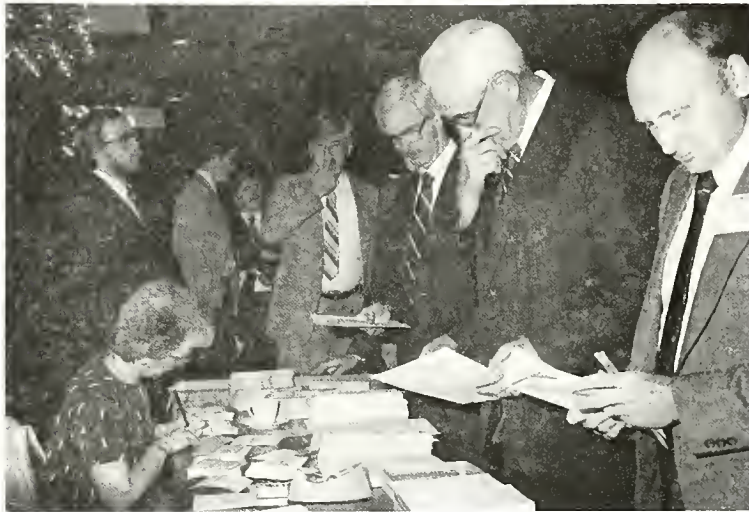
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Wednesday, May 9

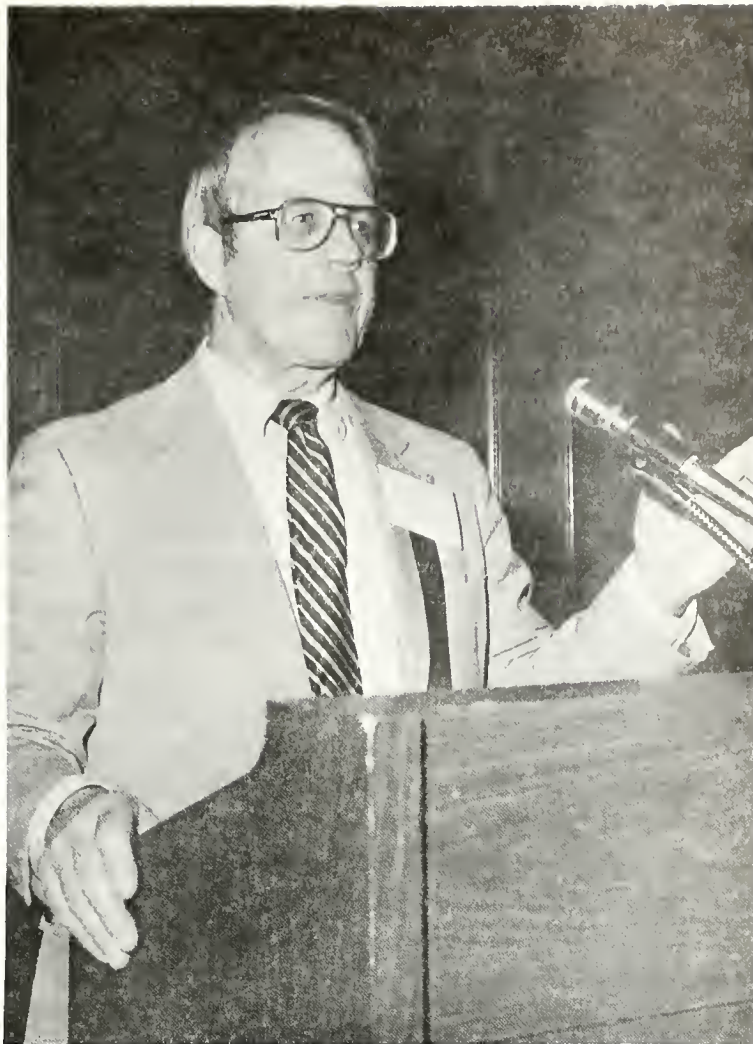
- 9:30-10:45 Registration and Coffee
- 10:45-12:00 Plenary Session
- 10:45-11:00 Welcome and Opening Remarks
 Edward L. Walls, Jr., DBA
 Chairman of the Library Trustees
- 11:00-11:45 Keynote Address
 "Role of the Community Hospital
 in a Competitive Environment"
 Thomas R. Matherlee
 Chairman of the
 American Hospital Association
- 11:45-12:00 Questions and Comments
- 12:15-1:15 Luncheon
- 1:30-5:00 Concurrent Group Sessions
- 1:30-3:00 Sessions for Topics A-1 and B (1st half)
 Sessions for Topics C, D, E, and F
- 3:00-3:30 Coffee/Coke Break
- 3:30-5:00 Sessions for Topics A-1 and B (2nd half)
 Repeat of Sessions for Topics C, D, E & F
- 6:00-7:30 Social Hour (Music by Art Barry Combo)

Thursday, May 10

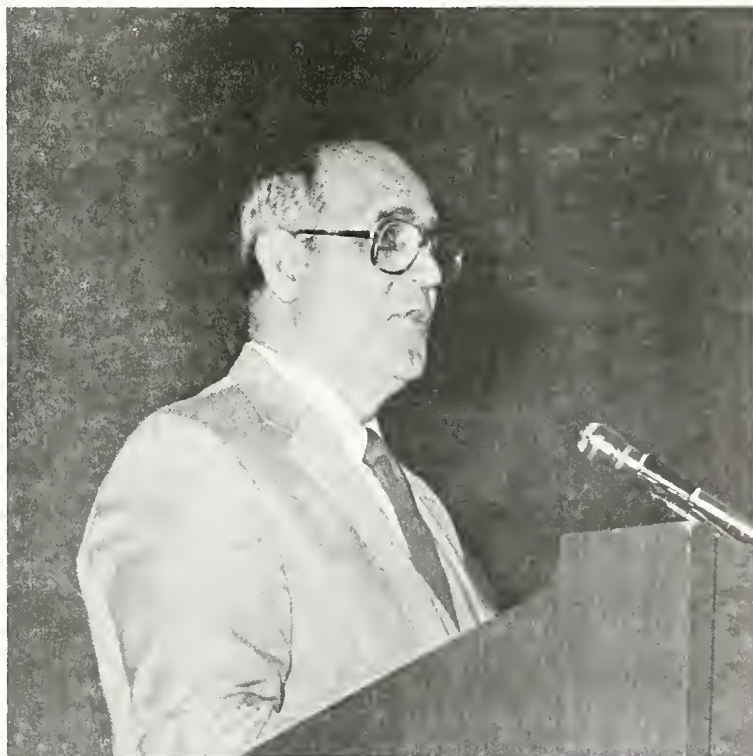
- 7:15-8:15 Buffet Breakfast
- 8:30-12:00 Concurrent Group Sessions
- 8:30-10:00 Sessions for Topics A-2 and B (1st half)
 Sessions for Topics C, D, E, and F
- 10:00-10:30 Coffee/Coke Break
- 10:30-12:00 Sessions for Topics A-2 and B (2nd half)
 Repeat of Sessions for Topics C, D, E & F
- 12:00 Adjournment

T H E F A C U L T Y

- Topic A-1 "An Overview of the Marketing Process"
- Topic A-2 "Marketing for Small and Rural Hospitals"
- Terrence J. Rynne
 Rynne Marketing Group
 Evanston, Illinois
- Topic B "Adapting to a Changing Environment--
 A Small Hospital's Experience"
- Philip S. LaKernick
 Administrator
 Good Hope Hospital
 Erwin, North Carolina
 Assisted by Lee Messer
- Topic C "Meeting the Needs of the Aging"
- Teri L. Loudon
 President
 Loudon and Company
 Chicago, Illinois
 Assisted by Heather Kaye
- Topic D "The Technology Explosion--Determining Needs"
- Douglas Henderson-James
 Department of Health Administration
 Duke University Medical Center
 Durham, North Carolina
- Topic E "Joint Venture Case Study"
- Frederick L. Soule
 Administrator
 Caldwell Memorial Hospital
 Lenoir, North Carolina
 Assisted by James Cogdell and Ralph Brice
- Topic F "DRG/PPS and the Capital Market"
- Terry H. Linn
 Partner
 Ernst and Whinney
 Charlotte, North Carolina



Edward L. Walls, Jr., DBA
Chairman of the Library Trustees



J. Albert McNab
Vice-Chairman of the Trustees



Thomas R. Matherlee

Paul S. Ellison
Cleveland Memorial Hospital
Shelby, N.C.

introducing Mr. Matherlee



"ROLE OF THE COMMUNITY HOSPITAL
IN A COMPETITIVE ENVIRONMENT"

Thomas R. Matherlee
Chairman
American Hospital Association
President
Gaston Memorial Hospital
Gastonia, North Carolina

Dr. Walls, members of the H. Carl Rowland Memorial Library Board of Trustees, staff of The Duke Endowment, distinguished guests, ladies and gentlemen:

In gathering for this 11th Annual Rowland Library Health Planning Seminar, we honor the memory of a man who had great impact on the majority of hospitals in the two Carolinas, a man who was planning before the word became a government mandate, a man with keen insight into the needs of the health care field, a man with a keen sense of humor, a man who left something good in the lives of those he touched, a man some of us older persons in this room were privileged to call friend. I consider it a personal honor to have been invited to speak at this seminar which carries my friend's name. It is with much fondness that I recall the straight forward nature of the advice Carl gave me in planning two facilities and the humor with which he let me know I was overdoing some things. I am the better for having had the opportunity of knowing and working with him.

It is appropriate that this seminar is being held during National Hospital Week which has a theme of "Caring." Appropriate because Carl Rowland cared and The Duke Endowment cares about the people we all serve.

The environment we face today in the health care services industry has changed remarkably in the eleven years of this seminar series. Perhaps the change in the past year has been the most dramatic and remarkable. At no other time in my working career has the driving philosophy of the health care financing system changed as quickly and drastically as it has with the advent of the prospective payment system this year. It has heightened our awareness of the word "competition" and it makes the subject of my presentation today--"The Role of the Community Hospital in a Competitive Environment"--both timely and, hopefully, of benefit to those who must meet the challenges of our changing industry.

Competition is a loaded word. Loaded with ambiguity--loaded with uncertainty--loaded with risk. To many people, competition implies a race to the finish, with a clear winner and an equally clear loser.

There are many different definitions of competition, many different views about how it will affect the health care industry, many different opinions about whether it's good or bad, many different tactics

for survival in a competitive environment. There are two things most people can agree on--

The first is that competition in today's health care industry means increased pressure on fewer resources.

The second is that a significant amount of competition is here--now--and it requires a whole new mindset about the business side of health care.

I'd like to examine with you some of the pressures that have thrown us into an environment of competition, the types of competition we can expect to see, and what our responses can and should be.

Health care competition is evolving in the midst of a very complex environment--an environment which finds hospitals facing challenges from many different quarters. And many of these challenges are rooted in a growing discontent with the amount of dollars spent on health care.

On a very basic level, health care is in competition with all other segments of society as the dollar resources of the nation are divided up. Priorities are set in this country, in government circles, through budget allocation, and health care programs must compete with defense programs, education programs, agriculture programs, and more as those priorities and those dollars are assigned.

Currently, the health care industry consumes 10.5 percent of the nation's gross national product. With the continual unfolding of new technology, medical discoveries, and innovative techniques, we could probably spend even more of the gross national product. But a number of other players are not going to let us do that.

These other players include the federal government, the business community, individual consumers, and a host of other watchdogs who have decided that our piece of the pie is "too much." After decades of being encouraged to provide as much health care as we knew how to provide, to expand access to everyone we could reach, to set our sights on "bigger, better, more," the message we now hear loud and clear is "too much."

The loudest and most visible critic of health care costs is the federal government. As the largest transferor of dollars for health care services, the federal government is determined to put a brake on the rate of increase in health care expenditures. And it is determined to do so through whatever means necessary. As a result of this drive, hospitals are facing one of their biggest challenges ever. The introduction of Medicare prospective pricing will inject some traditional business incentives into the health care delivery system. It will test our managerial skills and our business savvy. And it will contribute significantly to a competitive marketplace.

As the government attempts to restrain Medicare spending, third party payers are gearing up to make sure that hospitals do not shift Medicare costs to the private pay patient. Insurance companies are negotiating for discounts with hospitals, and setting up preferred provider organizations. They are looking for additional savings by encouraging--and in some cases mandating--preadmission testing and second opinions. Some offer premium reductions for health conscious behavior on the part of consumers.

Ironically, many of the same businesses that complain about the \$4.8 billion in revenues that we shift to persons who are able to pay (to cover our bad debts, charity, and shortfalls in government payment programs), are alleged to benefit to the tune of approximately \$70 billion per year in "cost shifts" from investment tax credits, loan subsidies, accelerated depreciation, tax preferences for employee health benefits and other fringes, and payments for not raising farm products, etc. It is even more ironic that the insurance industry, which is based on sharing risks and shifting costs, is leading the chant. They would do well to lobby for the government bodies to pay the full cost for programs the government mandates instead of lobbying for "all-payers" systems which are highly regulatory in nature and which, instead of solving the "cost shifting" will stifle the benefits of a competitive marketplace.

Like the federal government and third party payers, the business community is also examining new options with respect to the way health care is delivered and paid for. Business leaders are growing increasingly concerned with the amount of money spent on employee health. As the second largest purchaser of health--behind the federal government--business is realizing that it has much at stake in the way employees use the health care system and it is looking for ways to influence that behavior. Employees are being asked to assume larger deductibles and increased copayments in an attempt to encourage more cost conscious use of health services. The business community is looking with interest at HMOs and PPOs. The result of these steps is that business, too, is stirring up the marketplace.

Individual consumers will also influence the marketplace as the actions of government, business, and third party payers encourage them to become more sophisticated users and shoppers of health care. Recently, a study by the Rand Corporation, a California think tank, showed that people who pay high deductibles used about half as many health services as those receiving first-dollar coverage. As consumers are asked to be more involved financially in the health care services they use, they can be expected to become wiser and more scrutinizing customers.

Another aspect of consumer consciousness is also contributing to a crowded health care marketplace. A focus on health can be found in countless magazine articles, books, classes, fitness centers, sports facilities and shopping mall promotions, advising consumers to eat better, stop smoking, reduce stress, and exercise. Whole new markets are springing up in response to the nation's fascination with fitness, disease prevention, and health promotion.

The competitive marketplace is also being fueled by an increase in the number of physicians. As physicians compete with each other for patients, some are also branching out into new ventures that put them into direct competition with hospitals.

We have always had competition between hospitals and physicians in the provision of some services. But miniaturization of diagnostic equipment and the lower prices for this smaller equipment has generated greater interest in doing things in physicians' offices.

Many physicians have caught the entrepreneurial spirit and are establishing surgicenters, diagnostic facilities, and free-standing clinics. They are also much more receptive to alternative methods of health care delivery and are exploring new options with preferred provider organizations and HMO's. Physicians are alert to the changing scene and are eager to carve out their own niche.

Physicians are not the only ones interested in capturing some of the more profitable pieces of what has traditionally been hospital business. Entrepreneurs have sprung up everywhere and we are seeing a proliferation of emergicenters, primary care centers, homes health care businesses, occupational health services, sports medicine programs, and a wide range of other ambulatory services and facilities. I passed a van on the highway between Rutherfordton and Marion three or four weeks ago, and it had a sign on it--"The Medicine Man." When I saw the character driving it, I believe he just arrived from some Pacific island, based on his looks. I'll bet it wasn't legitimate herbs he was carrying. These entrepreneurs are siphoning off the most profitable parts of our business.

The competitive marketplace we now find ourselves in is the result of all these players--government, third party payers, business, consumers, physicians, and various entrepreneurs--taking a second look at the health care system. Motivated by a variety of things, but focused primarily on cost, it's as though suddenly everyone woke up at once and said, "Let's rearrange the way we provide and use health care."

For many of us, the effect of all this is a bit frightening. One of the more serious ways in which these pressures are being manifested is low census in many of our institutions, particularly in our part of the country. Some experts suggest that the trend may reverse itself and that it's too soon to tell what the long term effects of these varied pressures may be. Those studying the causes of declining census attribute it to a number of factors:

- . The medicare prospective pricing system is apparently having an effect on reducing length of stay.
- . Alternative methods of health care delivery are catching on.
- . The effects of the recession and unemployment are still upon us with the consequent loss of health care benefits.

- . In some areas, bad winter weather is also named as a contributing factor.

Whatever the reasons, the fact is that the patients who traditionally filled our hospital beds are not there in the same numbers. And we need to examine ways to maintain revenues in order to stay viable as health care providers.

At the same time we confront a competitive marketplace and begin to look for ways to maintain our viability, we are faced with competition of another sort--competition for capital. Dollars needed to diversity our operations, as well as to replace and renovate existing facilities, will be very difficult to come by. For a number of reasons, access to capital will be one of our most difficult challenges as we seek to survive in a competitive environment.

- . The uncertainties of the new Medicare payment system are making hospitals appear to be more vulnerable in the eyes of lenders who may seek safer investments.
- . Hospitals' access to capital through the tax-exempt bond market is uncertain as Congress repeatedly threatens to shut off this source.
- . The size of the federal budget deficit means that public borrowing will strain the supply of lendable dollars.
- . Prospective pricing presents a major challenge to our ability to realize an operating margin in our institutions sufficient to generate our own funds for capital purposes.

Now for the good news. I've told you some of the ways in which competition is working to break our backs. Now I'd like to share some thoughts about how we can and must respond. The outlook is not all gloom and doom. The world that is changing so rapidly and so dramatically is also full of new opportunities. The environment that is threatening is also stimulating. It is an exciting time to be in the health care business. But it is indeed a time that will challenge us in new ways, force us to break out of old, comfortable niches, and require us to be the brightest and the best of those who seek to provide health care services.

We have a number of things going for us:

- . The first is that the basic business that we are in is never going to go away. Unlike some smoke stack industries, whose products have become obsolete, nothing can totally replace some of the things we're in business to provide.
- . Secondly, we know a lot about health care. We should not be frightened by the new kids on the block who are trying to show us up. But we should be responsive to the challenges they raise--we can learn some things from them too.

- . And, we have longstanding traditions that, in the long run, will serve us well. Because of the way most of us are governed, communities and hospitals are linked in a very special way. We must guard that unique relationship and build upon it as we respond to the demands of a competitive health care environment.

While some traditions are worth clinging to, others should be set aside. One of the single most important things required of us in a competitive environment is a willingness to venture into new areas, to do things differently, to seek new solutions. The times demand examination of the way we have always defined ourselves. Health care is undergoing radical change right now and we too will be required to change radically. Historically, those who do not alter themselves to adjust to a changing environment became extinct. It is a law of nature, but not one over which we are totally helpless. We can take action to make our futures more secure.

So how do we respond to a competitive environment? How do we determine what things to let go and what things to fight for? How do we redefine our role in the community?

After taking that first step of faith--the acknowledgment that it is possible to alter our destiny--we must start with self-examination. We must study our own operations thoroughly to determine where we are strong and where we are vulnerable. In a marketplace fueled by concern for cost, we need to begin with a scrutiny of the cost of everything we do. We must take cost accounting lessons from the manufacturing world so that we can identify the cost of each component of the services we deliver.

A lot of us have not had detailed information of this nature nor have we had reason to use it. With Medicare prospective pricing it will be absolutely essential that we be able to identify the cost of everything we do and that we find ways to alter those costs that are out of line. This kind of cost awareness will demand that we rethink those things that have become routine. That we ask questions about every procedure at every level. Is it appropriate? Is it necessary? Can it be done a different way?

When we have done everything we can to control costs within our existing operations, we must continue the self-examination into the very nature of the services we provide to our particular community. Altering ourselves to adjust to a competitive marketplace may involve much more than trimming costs by altering schedules and procedures. It may well mean altering our identities. It may mean giving up some services or developing more appropriate ones. It may mean entering new markets--or creating them. It means we must analyze how we can most appropriately utilize unused acute care bed space. Above all it means asking the question--"Is this hospital doing the right things to survive in this marketplace?"

And that means doing a careful assessment of the marketplace. Determine what services are really needed in your community, which ones

are oversupplied and what needs may be going unmet. Look at the things that motivate people to use your institution's service. Is it convenience? Is it reputation? Is it medical staff? Is it simply awareness?

Several years ago, the theme of National Hospital Week was "Get to Know Us Before You Need Us," in which hospitals encouraged their communities to become more aware of their institution's services. The slogan points up the fact that most people really don't know very much about their hospital until they have a specific need. They may not know that your institution has the best equipped and best staffed cardiac unit in the region. They may have no idea of the range of services available on an outpatient basis. And they're much more likely to look to the YMCA for a stop-smoking clinic than to the local hospital.

Most of us are neophytes in the areas of marketing, advertising and promotion, because traditionally our business just came in without much effort. But the world is different now. Inpatient care is not the only alternative in many cases and our competitors are actively telling the public about the options they offer. We must do the same.

The other side of knowing the marketplace is knowing your competition. If another provider can more effectively provide a service you now provide, it may be that you are doing something wrong. Or maybe you should give up that service and find the area where your resources can be concentrated to make you the most effective provider. Don't compete in areas that are oversaturated. If everybody competes for the same business in this environment, somebody's going to be cut out. And some needs will go unmet.

This is a time for negotiation, for cooperation, for sharing as well as competing. It is a time to look at new arrangements. The best way to survive the threat of physicians taking away some of your business is to sit down with them to talk about joint ventures. You may have something that somebody else needs--like computer capabilities that may represent a new revenue source.

If we are to be able to continue to provide services, we must assure that we have an adequate supply of capital. To do this we must have an operating margin that reflects our capital needs, enabling hospitals to repay current debt and meet future demonstrated requirements. A sound balance sheet is a must because it impacts on a hospital's ability to debt finance and the rate of interest they will pay. Hospitals as an industry must maintain access to tax-exempt financing. New approaches to capital formation and access must be explored so that we are not so dependent, however, on tax-exempt financing. Joint ventures, linkages with financial institutions, equity financing by not-for-profits, and multi-organization linkages and pooling are some of the areas that must be explored. The factors surrounding the capital issue are, indeed, complex and not subject to simplistic solutions and business as usual proposals.

Sorting out the options will be one of the most difficult tasks we face. The era of limited resources is not one of limited opportunities. Deciding what to give up, what to hold fast to, and what to share will require precise strategic planning that focuses not just on the market as it is today, but on what it may be down the road. You must aggressively determine your role in the new marketplace and position yourself there.

Acute care is still our most important role--our unique role. Strategic planning should focus on determining those things that will keep the acute care hospital a viable institution. The adjustments we must now make, the new ventures we pursue, the marketing we launch are intended to support acute inpatient care--that part of health care that only we can do.

There is another part of health care that only we will do. And that is to continue to provide health care for those patients who cannot pay. No one will compete for their business. But we cannot neglect their needs. That part of our caring tradition must not fall by the wayside as we seek to survive in the competitive marketplace. We must simply include it as part of the mix that our more profitable ventures must balance.

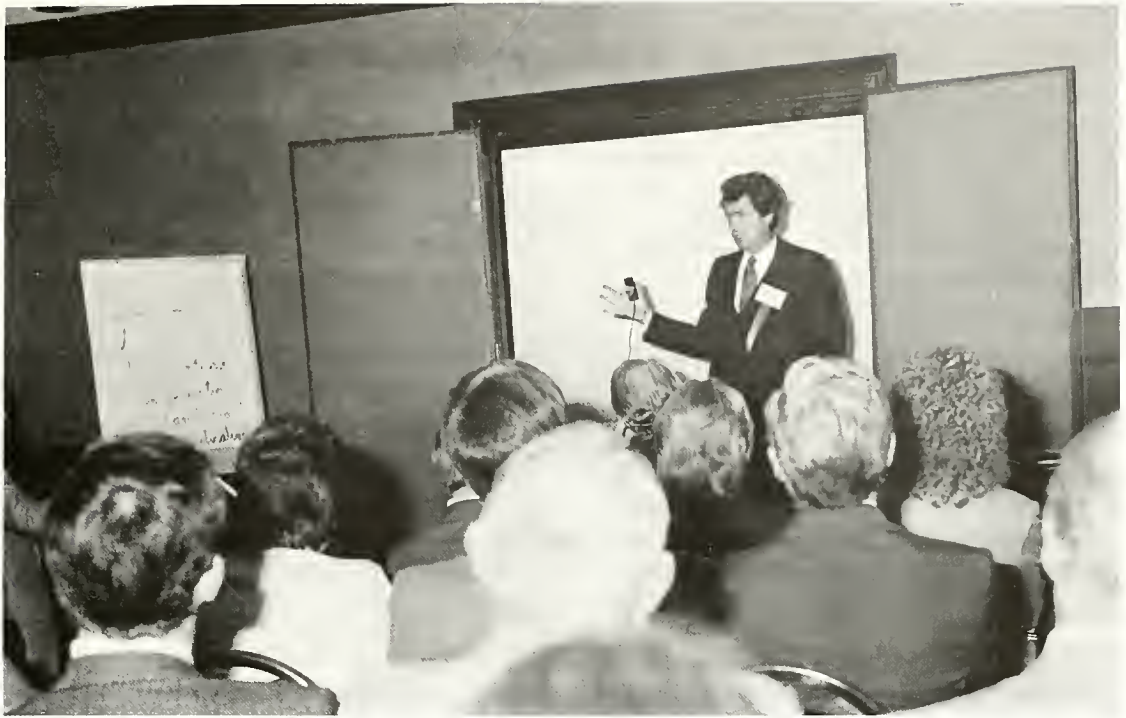
There are other basics to be remembered. Among them, a central focus on the patient. Thomas J. Peters, co-author of the best seller, In Search of Excellence, talks a great deal about the competitive edge that comes to those businesses, those companies, those institutions that never forget who their customer is. He gives example after example of companies who survive and thrive in the face of sharp competition because they keep that focus foremost.

Many times, people take their business elsewhere for seemingly insignificant reasons--something is slightly late, something is slightly dirty, someone is slightly curt. They remember people who smile, people who help, people who ease the way.

These are things that are critical to us now. We must find ways to foster attitudes of excellence in every person in our institutions. Tom Watson, Jr. writes about such things in his book about IBM, A Business and Its Beliefs.

"These are not small things. The relationship between the man and the customer, their mutual trust, the importance of reputation, the idea of putting the customer first--always--all these things, if carried out with real conviction by a company, can make a good deal of difference in its destiny."

Our destinies may seem uncertain. We are faced with challenges we cannot ignore. The pressures of government, third party payers, the business community, consumers, physicians and a wide range of entrepreneurs are forcing us to reexamine our world. The test will require us to look intently at ourselves, and our communities, to change those things that we have not done very well in the past, and to never let go of those things that we do better than anybody else.



Terrence J. Rynne

"MARKET-BASED PLANNING FOR HEALTH CARE: A WORKING MODEL"

Terrence J. Rynne
President
Rynne Marketing Group
Evanston, Illinois

WHAT IS MARKET-BASED PLANNING?

Market-based planning is the third generation of hospital approaches to planning. First came institutional planning, with its focus on certificates of need and capital assets, and then came corporate planning with its focus on portfolio analysis and program development. Market-based planning, while not neglecting capital asset and program development issues, focuses on market analysis, customer satisfaction and increasing market share.

In a market-based planning system, the whole management team from CEO to Head Nurse is involved continuously and systematically in improving its understanding of the hospital's various customer segments and, in the light of that knowledge, continuously upgrading services for improved customer satisfaction.

Instead of making the experts the touchstone of strategic decisions, market-based planning makes the customer the touchstone. It takes the basic insights and tools of marketing as they have been developed by other industries and makes them central to the management of a hospital:

- that customers aren't all alike, and various customer segments need to be handled in distinctive ways
- that marketing research can unlock secrets of customer behavior, desire and unmet demand
- that knowledge of the customers' needs and wants is the key to effective service design
- that any product or service is actually a bundle of benefits that either matches or misses what customers are seeking
- that the marketing mix of product, place, price and promotion can be managed in such a way as to effortlessly (apparently) match what customers are looking for and practically make selling unnecessary.

Market-based planning is an attempt to emulate in a hospital setting what is meant when the business press says IBM or Matsushita or American Express are powerful marketing organizations. Those organizations don't tinker with marketing. They make it central to the

way they are managed. Their culture, systems and style are all marketing oriented, market driven. A company like Texas Instruments, on the other hand, is now struggling to survive and is attempting to find marketing talent to help it make the transition from a product-driven, expert oriented firm to a market oriented one.

Why shouldn't a hospital, whose "raison d'etre" is service, have a management style that more closely matches its mission? If a hospital's output is serving people, why shouldn't the source of its input, the way it comes to make decisions and allocate resources, be the people it serves? In comparison to a consumer products or financial service firm, it is more appropriate, not less, for a hospital, given its service tradition, to be customer driven.

It makes sense therefore for a hospital as it begins to implement a formal marketing program, not to "tinker" with marketing a la Texas Instruments, but to strive from the beginning a la IBM, to become a powerful marketing organization. It makes sense for a hospital not to "do" marketing but to become marketing driven, hence a market-based planning system.

DESCRIBE HOW IT WORKS

A year's PERT chart would best illustrate it. A description of the main points of a year's cycle might convey it most simply: From January to March every year the Planning, Marketing, Finance and Human Resource Departments complete both an updated environmental assessment and targeted market-research studies. In April, senior management begins working out the hospital's objectives for the following year. In June, senior management presents a draft of the coming year's hospital objectives and each Vice President's objectives to the rest of management. During July middle managers update their departmental three-year plans using a market based format, and in August the budgeting process begins. The hospital's strategic five-year plan is updated in September for presentation to the Board at an October planning conference. In November and December the next year's plans and budgets are finalized.

Some of the hallmarks of the cycle:

- a premium on cooperative, penetrating staff analysis
- senior management leads
- middle management participates actively
- financial, human resource and physical plant issues are all integrated into the planning process
- strategy drives budget
- market needs and wants drive strategy

HOW DOES MARKET BASED PLANNING DIFFER FROM OTHER APPROACHES?

While similar to other well run hospital systems, it differs, perhaps, in the way that marketing is thoroughly integrated into the system at all levels of management as a consciousness and as a method. Senior management at the corporate level actively uses market research and a marketing approach to decision making. For example, when researching the need for and viability of an Immediate Care Center, instead of using a typical planning analysis which would look at existing patterns of medical care vis-a-vis demographics such as office locations, average number of visits to various specialists, per population cohort, a marketing research analysis would be used which seeks to know the level of consumer satisfaction with existing patterns of medical care. The first analysis may conclude that the area is over-doctored while the second may show a large level of consumer dissatisfaction, a softness in the market and a very large niche of opportunity.

Middle management as well has a marketing, i.e. a customer-satisfaction-consciousness, and knows how to analyze services using marketing methods.

In a growing competitive environment, all hospitals will be turning to marketing. All hospitals are already making what are essentially marketing decisions. The only question is whether hospitals will do marketing well or poorly. Instead of approaching marketing narrowly as promotion or advertising, it makes sense for hospitals to integrate it into their management culture, style and systems. Marketing, if integrated in that way, can work its magic.

HOW DOES A HOSPITAL GET STARTED?

In my role as a consultant working with a hospital that is interested in marketing marketing to the organization:

The first step is to work with the CEO on a STRAP analysis: Segment and Target the various constituencies, do a quick Research Analysis of what their needs and resistances might be and Plan accordingly. Once they are introduced to it they find it helpful, exciting and productive. Consequently a good first step for most is to conduct a full or half day management retreat on marketing.

The second step is to develop a chart of responsibilities. I would work with the appropriate staff person and CEO to develop a statement covering Board, Medical Staff, CEO, Senior Management, Middle Management and Staff Departments' roles and responsibilities for marketing. Such a document helps everyone think through what they should expect from themselves and others when it comes to marketing.

The third step is to translate the role and responsibility statement into a PERT chart and calendar, specifying who is to produce what by when.

The fourth step, given adequate funding for staff and research, is for the marketing and related staff people to develop a simple format for managers to use that will foster a marketing consciousness and help them use the tools of marketing.

Fifth, begin. Stay with it.

Finally, reward on the basis of marketing achievements.

WHO DOES MARKET-BASED PLANNING?

Line managers do market-based planning, not the marketers or the planners. The main test of a good marketing or planning staff is whether or not everyone else in the organization loves to plan and market. The more effective the marketer, the more proficient is each line manager in his/her abilities to manage the marketing mix for customer satisfaction.

This approach recognizes that a hospital is a diversified organization with many lines of business. No one person or department is able to know so much about all the lines of business or to know the subtleties of effectively satisfying all the customers to be able to develop an effective plan for each. Better to place the responsibility for marketing at the nodal points of the organization. Better to make each manager accountable for planning and marketing just as each has learned to be accountable for budgeting. The operating managers are the key persons in a market-based planning system. They are, in the sphere of authority, accountable for and rewarded for effective marketing.

This approach avoids scapegoating. The marketer is not hired to do what poor management has not been able to accomplish. In other words, the Director of Surgical Nursing is responsible, accountable and rewarded for increasing the number of surgeries; the Director of Pharmacy for finding ways to increase business; the Director of Rehabilitation for increasing the occupancy of the rehab unit; the Director of Physical Therapy for increasing the numbers of therapies prescribed by the physicians, and so on - not the marketing department.

Many places expect the marketing department to make the occupancy rates rise through promotion alone. They don't realize that the real work is probably in the other three "p's": place, price, and especially product - all of which are in the domain of the operating manager and his/her line supervisors. Market-based planning puts the onus where it belongs, on the back of the persons in charge of and capable of making it all better. Why isn't the occupancy rate

going up? In most hospitals marketing is set up to take the blame when the hospital or individual departments don't turn around. In a market-based planning system, management can point the finger only at itself and then go back to this STRAP drawing board.

WHAT THEN IS THE ROLE OF THE MARKETING PLANNING STAFF IN A MARKET-BASED PLANNING SYSTEM?

Before answering that question, the roles of three other important participant groups have to be clarified: Board, CEO/Senior Management, and Medical Staff. If a hospital is wise, it will spell out the role of each of these important participants in the marketing process given its individual history and politics before launching the marketing function.

A number of presuppositions are at work here: a market-based planning system works best if there is: (1) as much consensus on priorities by management, Board and Medical Staff as possible; (2) the hospital has a strategic plan, updated annually; (3) priorities of the plan are clear; (4) goals and objectives are spelled out in measurable terms; (5) management is rewarded on the basis of achieving the objectives in the plan.

If the items are in place, the Board's role in the process is to be the Board and not to be euchred into working on the same plans as management or the Medical Staff. Norman McMillan talks about Board members working on committees, shirt sleeves up, collecting data, weighing options, developing plans. That may be appropriate if a hospital does not have a management staff capable of developing a plan and keeping the Board and Medical Staff informed, but otherwise it seems inappropriate and wasteful. The role I would recommend for the Board is the authority position of approval, disapproval or "go back and work on it some more" given these criticisms, suggestions and wisdom. Through the planning committee the Board is periodically appraised of the key facts in the data base such as the environmental assessment and market research results. It is presented annually with an updated five year market-based strategic plan and a one year operating plan. It reviews monthly progress towards the year's objectives, and annually rules on the CEO's merit raise based on the attainment of the plan's objective.

The Medical Staff's role in the marketing process also can vary depending on the hospital's history and politics. At the very least, representatives of the Medical Staff will serve on the Planning Committee of the Board and the whole Medical Staff will be polled annually for suggestions for the strategic plan. At the most, members of the Medical Staff may sit with Senior Management during the process of weighing and evaluating options and crafting the plan for presentation to the Board. Medical Staff members may also have an important role in carrying out arts of the marketing implementation plan.

Senior Management and the CEO's role in the market-based planning process is crucial. Presuming the CEO works with his/her Senior Management group as a team or cabinet, this participant group bears the main responsibility for market-based planning at the corporate level: reviewing the findings of the marketing/planning staff's environmental assessment and market research, developing options, weighing the possibilities, crafting a strategy and positioning, selecting priorities, keeping the medical staff informed and involved and presenting the results to the Board in proposal form. Senior Management has the experience, in-depth involvement and presumably the talent to calculate the direction the hospital as a whole should take as it collides with the future and a changing environment.

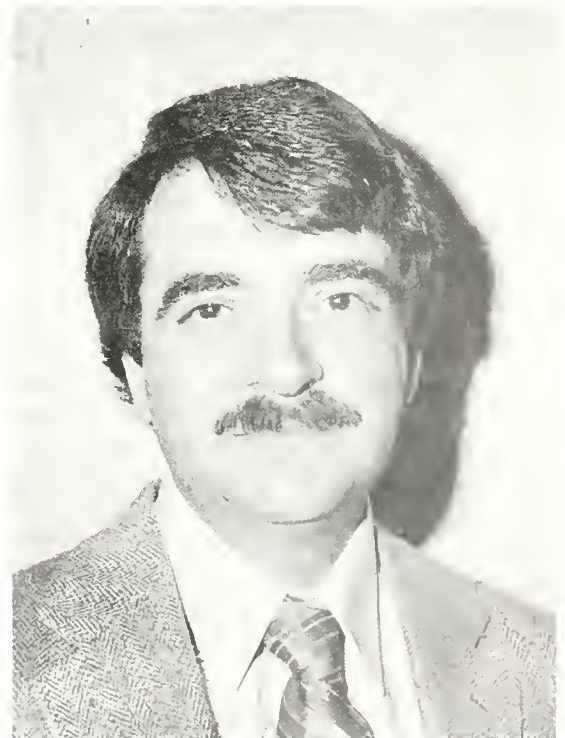
Finally then, if line management, both senior and middle, is so intimately involved in the market-based planning process, what is the role of the marketing staff? The senior marketing staff person, presumably in middle to large hospitals a Vice President who integrates under himself/herself the staff functions of marketing, public relations, community relations, planning and development, serves as the CEO's engine for making the whole process hum. He/she designs, facilitates and monitors the process; supports line managers through information and education as they shoulder their responsibilities, and provides the professional, specialized marketing services the organization requires: market research (the priority studies as indicated in the strategic plan), market analysis, consumer satisfaction monitoring, pricing sensitivity analyses, promotion campaigns, including advertising and media plans, as spelled out by the market-based strategic plan.

The senior marketing person will be a member of the CEO's cabinet and therefore has two positions of power: the information source position and the collegial decision-making position. In the first, he/she is responsible for making sure the very best information is brought to senior management in a usable form that facilitates decision making. This kind of staff position is in effect already an independent, powerful role: masses of data are shaped into usable information through the discerning judgment of staff professionals. Secondly, within the CEO's brain trust the senior marketing person is likely to emerge as the leading strategist of the organization, thereby transcending his/her staff function: he/she is more immersed, day to day, due to her/his position, in environmental and market information, than are her/his colleagues; and she/he is most likely more highly trained in this kind of analysis and strategic thinking.

The senior marketing person therefore becomes in time both a staff and a line position.



Lee Messer



Philip S. LaKernick

"ADAPTING TO A CHANGING ENVIRONMENT--
A SMALL HOSPITAL'S EXPERIENCE"

Philip S. LaKernick
Administrator
Good Hope Hospital
Erwin, North Carolina

The Town of Erwin began due to the Duke Family of Durham, North Carolina, who wanted to expand their textile business and build another cotton mill. A couple of Duke brothers had been peddling their tobacco by horse and wagon and noticed Avery Mill Creek and the Cape Fear River in their travels from Durham to Fayetteville. It was decided that somewhere in that vicinity would be an ideal manufacturing site, since the mill could take advantage of the water from these sources. The town of Erwin was first chartered as the town of Duke on April 20, 1892, by Erwin Cotton Mills Company; back then, particularly in the south, many towns were started by cotton mills. In 1926, the name of the town was changed from Duke to Erwin because the name Duke was given to Old Trinity College in Durham. Erwin was named in honor of W. A. Erwin, who was made president of Erwin Cotton Mills Company in 1927 upon the resignation of B. N. Duke. The mill opened in 1904 and over the years has changed ownership and names a couple of times. Since 1962 it has been a part of Burlington Industries, Inc., and is known by the same name. The Erwin Plant(s) are the world's leading producers of denim.

Mr. Erwin persuaded a Dr. William Preston Holt to move to Duke in 1904 to provide medical care for the workers in the mill that was being built for the Duke Family. As an added inducement to come, Mr. Erwin told Dr. Holt he could live in a mill-owned house the rest of his life without rent.

The disastrous cotton gin explosion in Duke in 1903, which killed four (4) people and injured several, probably helped Dr. Holt realize the need for more medical services for the area, even though Drs. McFadgen and Murphy were already practicing here during the construction of the cotton mill. Good Hope was the first hospital in Harnett County and opened with six (6) beds in 1913; it was a wood dwelling, situated near the present facility.

Good Hope Hospital is a not-for-profit hospital, the present facility was originally built in 1921 (one wing of the present building) located in a rural community of 3,000 people in East-Central, North Carolina; our service area encompasses approximately a 40,000 population base; we presently have 72 beds, made up of 7 intensive and coronary care beds, 9 step-down beds (progressive care), 51 medical and surgical beds and 3 pediatrics beds (we have no obstetrical beds in our hospital). Just five years ago we were a 53-bed hospital with only a 78% occupancy rate, with only 6 primary care physicians having active admitting privileges and no specialists. Today we have 13 physicians with active staff privileges, we have expanded our

specialty base by adding: a pediatrician, a thoracic-vascular surgeon, 2 urologists, and a full-time radiologist; in 1982 our occupancy rate was 94.9% and in anticipation of DRG's from July to September our occupancy rate fell to 84.4% but our beds increased 55 to 72.

In the past 6 years many changes and additions have been made to our facility in order to compete with other hospitals; we are the smallest hospital in our area.

There is a 117-bed facility just 4 miles to the east and major medical centers 30 miles to the south and 40 miles north, with an excess of 400 beds each. We have found in order to compete successfully with these larger facilities, efficiency and appropriate level and array of services have to be developed that are effective as well as efficient. These expanded services may well be our only salvation for the short term as well as long term future.

The hospital was donated by Erwin Mills to the community in 1946, a not-for-profit corporation was formed with a 9-member Board of Trustees. Only limited growth occurred in the time from incorporation until 1973 when a new Dietary Department was added. In 1979 the first major building project was completed and included emergency room facilities; outpatient areas were expanded along with the addition of trauma rooms, 2-room radiology department, waiting space, admission and outpatient offices.

A little history may be necessary to understand how we developed our large service potential from a small hospital base: in late 1977 and early 1978, two major decisions had to be made by our hospital: (1) whether to remain in existence as a small hospital, surrounded by many larger medical centers, or (2) if we were to remain in operation, should we expand our current facilities, or replace them entirely. One major problem was the lack of any type of a long range plan or available data base that might have helped us make these decisions. Before any decisions could be made on either of these two points, extensive manual data gathering had to be accomplished in order to make logical decisions; this took a tremendous amount of manhours to accumulate, since there was no established computerization of the hospital. Although the data base was not complete at this point (early 1978), certain very interesting observations were noticed: (1) the patients who used the hospital were very pleased with the hospital services and felt that the personalized care was the best in the area; (2) there were no capital or reserves for replacement of the facility, and an already existing long term debt due to the previous addition that had been completed in 1973; (3) also evident was the lack of sophisticated ancillary equipment and services that the hospital really needed to provide. Physicians had to either transfer or refer patients to referral centers for services at least 25 miles from our facility and perhaps lose their patients in many instances to other facilities where they were transferred for services; (4) the State Facilities Services noted several building deficiencies that needed to be corrected if we were to maintain our hospital license.

In order to rectify these deficiencies, a long-range plan was developed for a 7-year period; 17 major areas were addressed. Based on data collected and recommendations of the Administrator, the long-range planning committee and the Board of Trustees approved the 17-point plan that was to be phased in over the 7-year period. This long-range plan was based on: the data collected, a structural analysis completed by a structural engineer showing that the facility was in excellent structural condition (meeting all NFPA and JCAH Standards). The consultants felt it would be foolish and expensive to replace the entire facility since it was feasible to modernize and add on as necessary, especially since net capital reserves were available.

This construction plan would be phased in over a 7-year period. The first 2 areas requiring immediate relocation were: first, to replace the 2-room emergency area with a 5-room emergency and trauma area and to replace the 25-year old single radiology unit that was both antiquated and terribly undersized, with 2 completely new radiographic units with changing rooms and toilet facilities, there previously was a common toilet 25 feet from the X-ray unit. A fund raising program was held that completely paid for these additions; the second need was to replace the totally manual bookkeeping system of the hospital with a computerized system that would provide an adequate data base for making appropriate decisions for the future. A sophisticated computer was added in the spring of 1978 and conversion was completed by the summer of 1978. The new emergency and radiographic addition was completed in January 1979. As an indication for the need of expansion and addition of emergency space, emergency room visits increased 50%, from just over 10,000 in 1978 to 16,356 in 1983. Good Hope Hospital was chosen as the advanced life support hospital for our county in 1982. We continuously train IV level I paramedics as well as EMT's. We presently also have 8 trained mobile intensive care nurses (M.I.C.N.'s) which help to channel trauma patients through or to our facility.

Revenue increased from a loss in 1978 to a \$293,000 surplus in 1983, mainly achieved through developing additional services and expanding in-hospital capabilities, thus saving a large sum of money through efficiency and cost containment.

The first computer system was a basic accounting system and was replaced with an expanded system in January 1981. This computer system, the Saint Hospital Computer System, was purchased from SAI (Systems Associates, Inc.) This system provided a complete integrated system that helped establish a complete data base. At present the computer system consists of: 8 terminals--4 in the computer room, 1 in credit, 1 in purchasing (inventory), 1 in pharmacy, and 1 in medical records; 4 printers--1 in the computer room, 1 in credit, 1 in purchasing, and 1 in medical records; with software programs for--accounting, general ledger, patient billing, a bad debt system, payroll, accounts payable, inventory control, medical records, fixed assets accounting; a medical record DRG program was added in October 1983. The purpose of the DRG software was installed in order to obtain the appropriate weights assigned by the Health Finance

Administration (HFCA). This is called the "Grouper" and went into effect on October 1, 1983. A second part of the plan was to update and sophisticate ancillary services--one example of this was done by increasing the laboratory capacity of 800%.

In order to increase productivity in the lab, we automated everywhere possible, eliminating unnecessary man hours in order to achieve this 800% capacity increase. Prior to automation, approximately 25% of our tests were sent to outside reference laboratories--complete turn around time varied from 24 to 72 hours. After automation, less than 3% of all lab tests are referred to reference laboratories, and only those tests that are so infrequently ordered that it becomes impractical to do them on site.

The variety of lab tests increased by approximately 30%. Also, in the automation process we installed a separate laboratory computer (Citation Systems) for: doing complete quality control, patient information, statistical gathering and also for data collection for all patient lab tests performed. The lab computer allows us to keep all patient information in the system so that we can retrieve it almost immediately and be able to compare lab tests results, going back to the very first tests that were put into the computer to the present and compare these results for a particular period of time, for comparative analysis. This allows the physician to easily follow trends and changes.

Other ancillary services that have been upgraded and expanded are: respiratory therapy (which also performs pulmonary function testing), pharmacy which was previously managed by a part-time pharmacist, has been increased to two full-time pharmacists and three pharmacy technicians; an IV additives program was instituted and a Laminar Flow hood was added; a unit-dose pharmacy disposing system and a complete pharmacy nursing coordinated comparative analysis of all drugs ordered and reviewed for possible drug inter-actions was also added; another ancillary service added in 1979 was physical therapy which presently has two full-time physical therapists and a third therapist to start in August 1984, three licensed physical therapy assistants and three aides (this department has greatly expanded our capability of doing rehabilitation and for keeping many patients in the hospital that would ordinarily have been transferred to other facilities). Another ancillary service added was the nuclear medicine and ultra-sound service which was added in 1982. The unique feature of this service is that we share this system with three other hospitals, two of which are over 100 miles from our facility. The cost for each hospital service is based on usage of the system by each hospital, and allows all the hospitals to pay only for what services they actually render within the facility. The cost is divided by the percentage of use each month. This system is fully portable and mobile--it can be transported with very little effort and lets each of the hospitals using the system enjoy the luxury of a sophisticated system without having to offer the service at a loss. Each of the hospitals is presently at least breaking even on the service. This mobile system includes ultra-sound, so both systems being portable can be transported to the hospitals on their scheduled time and both services offered at the same time, since there are two trained technicians on each trip.

Other areas where high technology and computers have been utilized, other than the main computer system, are medical records and administration. In medical records, we utilize two word processing systems (Lanier) so that all dictation is transcribed directly onto a word processor and is stored as well as typed. In our business function we also have direct (2) computer terminals that link us to Blue Cross, Medicare, and Medicaid. This has greatly reduced our turn-around time with these programs and thus has increased cash flow. Lastly, we also use word processing in administration for all letters and memorandums that go from the administrator's office. Where a second secretary was needed and there was no place to put one, the word processor became the additional secretary. This produced greater efficiency, increasing productivity without increasing the number of personnel.

The Duke Endowment "Comparative Operational and Department Workshop" in 1983 showed that in our hospital size range, Good Hope Hospital had the lowest cost inpatient expense per patient day at \$179.77, and the lowest total expense per patient day of \$212.05, of any hospital within our size range in both North and South Carolina. Review of revenue showed our charges (computed as total revenue per patient day) was also the lowest at \$210.59 per patient day. Our efficiency is also shown in the total number of full time paid employees per occupied bed, which was among the lowest in our group at 2.76 FTEs per occupied bed, in comparison to 3.3 which was the average for our group. In 1984, this trend continued, even though our bed size increased us to another group, where we were the second lowest in the same areas. Since Medicare and Medicaid make up 64.0% of our total revenue, it is imperative that we have the necessary data to make determinations on: continuing programs, adding programs or deleting programs. The hospital receives no funds from foundations or individuals for continued operations and less than .3% of our operational monies comes from any form of contributions.

At the end of 1981, we began a building program to add 26 private rooms, all with full baths, and renovation and completion of a 7-bed intensive and coronary care unit. A second fund-raising program was begun in late 1981 and to date contributions and pledges amount to over three quarters of the total construction cost. Completion of the 26-bed private room addition was in October of 1982, and occupancy improved dramatically until October of 1983 when DRG's helped decrease our length of stay. Before we completed the new private room addition, we only had a total of 12 private rooms available, out of 53 medical and surgical beds and 2 CCU beds. With the completion of the new addition, we now have 35 private rooms, out of 68 total beds and 5 private rooms in our ICCU with one semi-private, thus giving the hospital greater flexibility that we did not have previously.

With the decreased census, alternate forms of revenue had to be developed and/or increased. In January of 1983, a satellite diagnostic center was developed 9 miles from the hospital. This has been greatly expanded to include: lab, X-ray, respiratory therapy, physical therapy and EKG. We are presently performing lab work for 2 rest homes, one nursing home, and another hospital, which generates additional revenue. Outpatient activity has also been greatly increased,

especially physical therapy, lab, respiratory therapy, X-ray, and emergency room.

Additional land acquisition and the expansion and paving of parking areas to alleviate cramped and over-crowded conditions was completed in the summer of 1983. The final phase of our long-range plan, instituted in 1978, is the complete replacement of our operating room suite--we will start construction on June 1, 1984. We helped organize with 4 other hospitals the sharing of a mobile CAT scanner, which we put into operation on April 16, 1984, saving our patients a 30-40 mile ride for these services.

Good Hope Hospital definitely feels that we have obtained our short-term goals of being able to offer a high quality of patient care for the citizens of our coverage area at a reasonable price, without trying to perform medical procedures that we are not competent to deliver. We feel that if possible a patient should be offered hospital care locally.

One of the main ways that the hospital used to replace and add equipment was through the use of leasing and rentals. Without cash reserves the use of leases and rentals became the only way to grow. Each piece of equipment had to be shown to be self-sufficient before a decision to obtain it was made. We have been very fortunate and all of these were self supporting.

Construction at our hospital is done primarily by our plant engineering department. The 1979 emergency room and radiology addition was completed at total cost of \$30.00 per square foot; our new patient wing of 26 private rooms was completed in 1982 at \$45.00 per square foot; the 7-bed ICCU renovation was completed in 1983 at \$13.00 per square foot; a new storeroom facility was finished in 1982 at \$18.00 per square foot; a complete renovation of existing rooms was completed in April 1984 at less than \$12.00 per square foot. Acting as our own contractor has saved the hospital hundreds of thousands of dollars and given us the expansion and renovations we so very much needed to survive.

Our latest project is total replacement of our operating room suite and a completely new lobby. The O.R. is expected to cost under \$60.00 per square foot and the lobby approximately \$40.00 per square foot. Finally, an immediate care unit will also be built as a part of the project at an anticipated cost of \$40.00 per square foot. These new services and facilities will allow us to continue to compete in our service area.

In order to help reduce duplication of services, joint meetings are held with our neighboring hospital, Betsy Johnson Memorial, a 117-bed facility 4 miles away, at least monthly meetings and frequent telephone conferences are also held. Areas of concern discussed most often are: census, sharing of a service or just discussing future plans of adding a service or recruitment of physicians. For example, we are in the process of recruiting both ophthalmology and ENT, where

they are recruiting family practice and orthopedics. Some members from the hospital's medical staff have privileges at both hospitals, which is very helpful, especially in subspecialty areas. We presently share several services and cooperate on many others.

With the implementation of the DRG program by Medicare at first review, it appeared that the hospital would lose \$565,000 on Medicare alone if the length of stay per DRG remained the same. Early preparation has helped us avoid this disaster.

The general purpose of the management engineering effort at Good Hope Hospital was to design and install systems and processes which would allow the hospital to respond appropriately to the DRG reimbursement system. Cooperation and teamwork were considered to be as vital as accurate and timely information so that the hospital and medical staffs could identify changing conditions and respond appropriately. By better equipping the hospital to access and use its own internal resources during a potential crisis, the hospital would also be able to find new ways of doing things and successfully deal with the crisis.

DRGs place hospitals in a more competitive situation than does traditional cost based reimbursement. Systems engineering teaches us that in a competitive environment, that system which has the most flexibility will have the best chance of seizing control of the market place. Flexibility results from improving the knowledge base, communications, cooperativeness, and choices available to the various component members of the organization.

The management engineering project specifically entailed designing and installing information reporting systems, problem identification systems and problem solution systems. The latter two systems involved the development and training of specific committees and teams within the hospital. The reporting system involved a process for accumulating, analyzing, and reporting information to the key committees, teams, and organizational members.

The specific decisions, policies, and actions developed by the hospital enabled the hospital to respond to the DRG crisis in a useful and appropriate manner. This does not mean that the same actions would be as useful or appropriate to other hospitals. Each hospital is a unique and individual institution and must make its own choices. The key here is not the specific changes the hospital made, but the underlying structures and processes which enabled all members of the organization to see the changes as correct for them and thus be motivated to make the changes work. Not only were sacrifices made at all levels, but individuals at all levels maintained or improved their morale and attitudes, increased their motivation levels, and improved the image of the hospital both in their own minds and in the community. As a net result, the financial viability of the hospital improved dramatically even during the leanest months.

The first phase of the management engineering project was the development of a standard cost study of all chargeable services in the revenue producing departments. The methodology required the development of standard setting teams in each department to expedite the gathering of data. Results were reported back to these teams for review before inclusion in the final report. Each team consisted of the department manager, the management engineer, and two or three key employees and/or supervisors selected on the basis of their technical competency. A specialized group estimating procedure with a rated accuracy of better than 90% was used to establish labor standards. Equipment, materials, and supply standards were set based on department records. The management engineer developed standard cost reports based on this information. An average of four committee hours per department was required for the complete cycle.

This methodology provides a unique opportunity for the management engineer to assess the attitudes and knowledge level of a critical group of employees in each department. The engineer provided instruction and education in the methods and rationale of productivity and cost management, with the specific teachings in each department designed to meet the needs identified in the assessment. As a result, the standards were never called into question, even when embarrassing deficiencies were found.

The initial use of the standard cost information was the analysis and adjustment of pricing structure on a charge item basis. For each charge code, the standard cost was compared with the charge and average collectible amount. Losers were identified and the charge was adjusted to break even or higher. The overall rate increase for the hospital was only 2.8%. These price changes left the hospital insensitive to case mix changes, thus simplifying cost management for each department.

Under retrospective cost based reimbursement, the price adjustments alone would have been sufficient to maintain financial viability. However, under DRGs, this viability was uncertain. To assess the impact of DRGs, the standard cost information was combined with historic trends in the length of stay and total patient charges to project an expected surplus or loss. This analysis projected an unexpected staggering loss far in excess of the hospital's financial reserves. Further analysis showed that 80% of the projected loss was due to a dozen or so DRGs where length of stay and patient charges were unusually high. These DRGs were designated as key DRGs requiring immediate attention.

An analysis of length of stay and patient charges for each physician was conducted for the key DRGs. The analysis showed the surplus or loss for each DRG and for each physician based on previous years.

The administrator appointed a DRG screening committee consisting of a rotating physician, the social worker, a floor nurse, the medical records director, and several other key hospital staff. The task of the committee was to monitor each patient admitted under a key DRG, and recommend discharge to the attending physician if the patient's condition warranted it. If the attending physician refused, the physician member of the DRG committee could authorize a Letter of Denial.

At the next medical staff meeting the administrator presented the results of the standard cost study and the overall financial projections, showing the projected loss if historic trends continued. The forthcoming crisis was described in explicit and certain terms. After unanimous consent, the physicians were shown their own specific individual contributions to the projected loss. The administrator next presented the idea that only a small percentage of DRGs constituted the problem and that survival was not only possible but probable if the medical staff would work cooperatively with the hospital to manage the problem. Emphasis was placed on teamwork and communication as the DRG screening committee was described. The administrator announced that it would commence operation on a test basis a week before the end of the fiscal year. After a brief discussion each physician was asked to pledge support for the effort and join the team. No physician refused, and some made impassioned pleas to their peers to not let this hospital go out of business.

The testing phase of the DRG monitoring committee began a week or two prior to the first of the fiscal year. This gave the committee time to streamline their procedures and develop effective communications with the medical staff. The medical staff responded cooperatively and made useful suggestions which made the system work better. By the time the first DRG patient was admitted, length of stay had dropped dramatically, and the majority of the key DRGs were no longer losses to the hospital. Unfortunately, this also resulted in a dramatic drop in census, so that within a matter of days census was fluctuating around the 50% level.

Concurrent with the development of the DRG monitoring system was the development of a complementary cost management system within the hospital. The key elements of this system were daily productivity measurement, weekly Performance Improvement Team (PIT) meetings, and monthly revenue/cost reports by department. This system was designed to respond rapidly to changes in census level by providing decision makers with daily management information, the methods for decisive action, and timely feedback on results.

The daily productivity measurement program provided managers with the needed information for controlling the most manageable of costs, labor costs. The department managers established a goal of maintaining productivity in the 85% to 130% range. When census dropped, most departments began to measure productivity levels of 35% to 60%. The department managers were immediately aware of the problem, and acutely aware of the responsibility which rested on their shoulders.

The PIT meeting process was designed to provide clear leadership and coordinated action to reduce hospital costs. The administrator led the first PIT meeting with his department heads, and each department manager was required to lead follow-up PIT meetings within his/her department. The management engineer and/or inservice education director attended all PIT meetings as process facilitator. In the PIT meeting process, a specific problem is explained in detail by the leader, and a commitment is made to solve the problem. Ideas are generated, discussed, and ranked by the team members, and solutions are implemented immediately. The top-down approach of problem identification and bottom-up approach of commitment to action creates an atmosphere of decisive leadership with decision making close to the point of action. The carefully structured process of the PIT meeting will provide a wide variety of carefully thought out options, yet a unified and coordinated set of individual department decisions.

The PIT meeting process commits the whole hospital to work on a single critical problem. The first problem presented (after an initial training problem) was to reduce overall costs by 22%. Within three weeks the goal had been accomplished. Departments had reduced inventory and supply costs, renegotiated lease and maintenance agreements, and improved productivity to an average level of 100%. Labor costs were reduced through a reduction in hours for hourly workers and a reduction of salary for exempt employees (including the administrator). Because of the participative nature of the PIT meeting process, the employees were not only willing to make sacrifices, but were thankful and proud to be a part. Supervisors, patients, and physicians reported an unusually high sense of unity and cooperation, and morale seemed to be at an all time high.

A monthly departmental revenue/cost report was prepared by the management engineer and posted in the hospital cafeteria. The report compared current revenues and costs with those of previous months, and highlighted the most successful departments. The main purpose of the report is to provide feedback and recognize those departments which have been successful in managing costs.

The first monthly report made explicit what was already known. Costs had come down more than revenues, and despite a nearly 50% decline in census, the hospital remained in the black.

During the first few months of the fiscal year the PIT meeting process was continued. Productivity gradually approached the 150% level as census slowly crept back to normalcy. Costs remained tightly controlled at all levels, yet employee hours were gradually increased as service demands rose.

When the hospital began to receive its first few Medical Remittance Advices, a continuing report on the costs and reimbursements for each DRG was prepared by the management engineer. The report shows for each DRG the year-to-date statistics for patient volume, hospital charges, Medicare reimbursement, hospital costs and surplus or loss.

The administrator, chief financial officer, and DRG monitoring committee receive copies. This report is produced monthly, and provides information on the results of previous attempts to manage DRGs, and enables the monitoring committee to focus attention on those few DRGs that constitute the current problem. The initial set of key DRGs was managed successfully in the first few weeks, and other key DRGs were identified as physician habits and seasonal factors changed.

After eight months of successful operation of the entire program, the hospital is enjoying its best fiscal year ever. Surpluses have already well exceeded last year's total. Census is near normal while other hospitals in the area are still low. Yet, the crisis is not yet over. Many lessons have been learned during these past months. Constant attention must be directed to maintaining a network of co-operation, communication, and teamwork. Information must be produced in an accurate, timely, and useful manner. Committees and PIT meetings must be regular and appropriately structured. Feedback must be timely and informative. Continuing education and other mechanisms of growth and development provide new sources for ideas. New ideas, when useful and effective, must become real changes that continue after the novelty wears off, and when useless or ineffective, must be quickly discarded. Continued leadership is a must. The system must be placed on a regular schedule of maintenance and calibration for continued performance. The success of the whole is dependent on the success of each part.

When all parts of the system interact effectively, the hospital is able to exert firm management controls over its DRG losses. With the first few months of Remittance Advice reports it became obvious that the initial set of key DRGs were no longer problems, but a half dozen new DRGs were showing growing losses. The DRG monitoring committee began to monitor the new DRGs, and nursing PIT meetings focused on improving patient care to those patients. The response was immediate, and the next month's report showed a reduction in year-to-date losses for those DRGs. Each such adjustment resulted in a lowering of census or other changes in service levels, but careful attention to productivity and cost reports allowed each department to adjust immediately.

Planning goes on for the future. The system now in place will be refined and adjusted as necessary. Other departments such as Plant Operations, Medical Records and Dietary are being incorporated more fully into the program. The system is expected to produce a regular rate of improvement in productivity and cost management for some time, and will be needed to maintain optimum levels when they are reached.

New projects currently under investigation will additionally be directed towards Quality Assurance and patient care improvements. Better mechanisms for evaluating employee and medical staff performance are under consideration, as well as new committee structures and processes for accomplishing the necessary changes.

Good Hope Hospital now enjoys an excellent reputation in the community, and amongst its own employees and medical staff. It is exploring and testing innovative ways to serve the community. Good Hope Hospital is past the stage of trying to survive, and continues to strive towards excellence, and it is succeeding very well.



Heather M. Kaye



Teri Loudon

"AN AGING POPULATION:
STRATEGIC OPPORTUNITIES FOR HOSPITALS"

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and

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We all know that the population in the U.S. is aging rapidly, and that this demographic change has enormous implications for our health care system. Hospitals, in particular, must face the reality of the future. This future includes the expanding health care demands of a growing elderly population at the same time as pressure is increasing for health care cost containment. However, there are also many new market opportunities created by an aging population and its particular needs. The key for hospitals is to identify those needs, develop the appropriate mix of services for the elderly and, at the same time, maintain financial viability. Our presentation will focus on three major areas:

- I. The Characteristics of the Elderly Population
- II. The Market Forces Affecting the Delivery of Care to the Elderly
- III. The Opportunities Available for hospitals to serve the needs of the Elderly and Their Families

In our brief hour, we can touch only on some of the more critical issues related to the needs of the elderly. However, within the presentation we will develop an analytical framework which can be used to evaluate these issues and the potential product/service opportunities in this market. We hope that this framework will provide a model for you to utilize in your own hospital as you develop your strategic plans for aging related businesses.

I. THE CHARACTERISTICS OF THE ELDERLY POPULATION

The elderly population poses a unique marketing problem because:

- As a society we are relatively uneducated about aging-related issues.
- Aging is viewed as a very negative issue in our society, placing constant pressure on all of us to act and be young.

- Marketing to the elderly is typically conducted by those who have never experienced what it is like to be perceived as old.
- Information resources on the older adult are very scarce.

As such, our first step will be to dispel some of the myths about aging.

ELDERLY PROFILE: KEY FACTS

- The Elderly Spend 3 Out of Every 10 Discretionary Dollars in the U.S.
- They are Loyal Customers to Those That Provide Them With Good Service
- They are Advertising Conscious and Enjoy Seeing Those in Their Own Age Group Portrayed in Ads
- They Will Change Purchasing Patterns for Price/Benefits
- They Give More Financial Support Than They Receive
- Their First Priority is to Health Care Bills
- Health Care Expenditures Per Person 65+ = \$2,638; of Which 29% is Paid Out-of-Pocket

II. THE MARKET FORCES AFFECTING THE DELIVERY OF HEALTH CARE TO THE ELDERLY

The current and future state of the health care industry is largely determined by forces external to it. We have broadly defined these forces as:

ECONOMICS
DEMOGRAPHICS
LABOR & RESOURCES
TECHNOLOGY

Before reviewing each of these forces individually, two important factors should be noted. First, these forces are dynamic and in constant flux. Secondly, the impact of these forces on individual markets will be different because the market characteristics of each specific geographic area will vary significantly. These two factors should be considered when you review the impact of each individual force on your particular marketplace.

1. ECONOMICS/FINANCING OF ELDERLY HEALTH CARE COSTS

Today 11% of our nation's population is over 65 years of age. This group accounts for 29% of all hospital admissions and 39% of total

patient days. As the elderly population grows, health care programs must be expanded to accommodate their needs and, therefore, more dollars will be necessary for health care financing. For example, in the year 1990, 60% of all males over 65 will be veterans. In response to this, the Veterans Administration has initiated several projects in the area of aging. Their goal is to serve this population with the most cost-effective comprehensive programs.

As you know, the government is closely scrutinizing all health care costs. The Congressional Budget Office, in the study which will specifically affect the long-term care system, is looking at the possible inclusion of skilled nursing facilities (SNF) and home health agencies (HHA) under a prospective payment system. Significant cost savings are being sought through this program. It is believed that broadening the scope of the prospective payment system in this manner will enhance incentives for these institutions to increase their efficiency. One study demonstrated a potential cost savings of \$130 million by 1985 if SNF's and HHA's are included under a prospective payment system.

There are a number of demonstration projects currently underway throughout the country that are geared to the elderly population. For example, the Robert Wood Johnson Foundation is funding a research project on HMO's that offer all inclusive care for the elderly. Interest in these comprehensive HMO's for the elderly is quickly intensifying as statistics demonstrate them to be a cost-effective method of delivering care.

In another project, Blue Cross and Blue Shield has devoted one quarter of a million dollars to developing programs that will cut nursing home admissions by 25% and shorten average length of stay by 40%. In addition, many private foundations are granting funds for aging related projects.

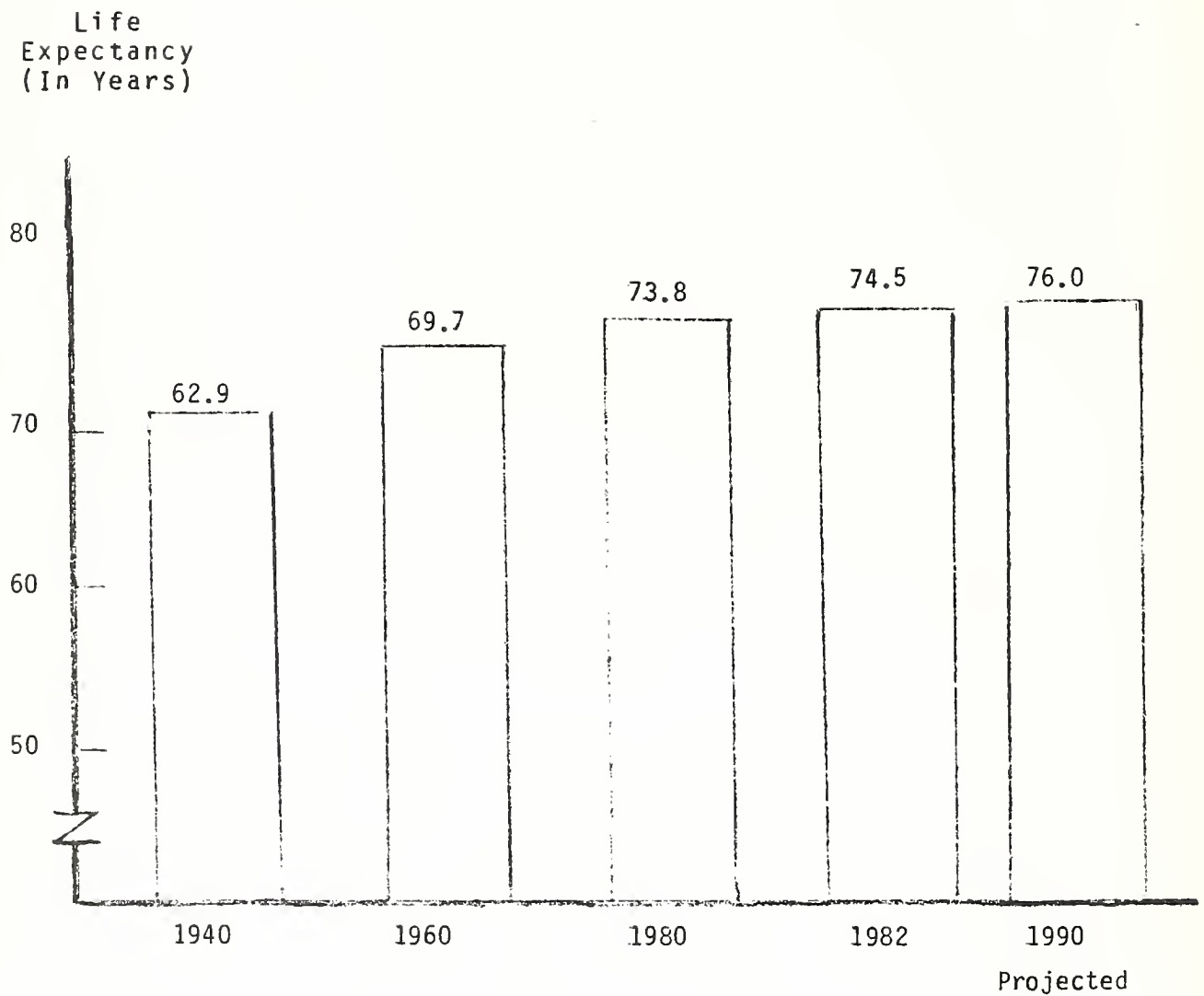
I mention these examples of financing vehicles specifically to encourage you to be creative when looking for financing for your elderly service programs. Take the time to fully investigate all available funding alternatives including both private and public sources.

2. DEMOGRAPHICS

In the recent past, we have seen tremendous changes in the demographic characteristics of our population. On the following pages, figures 1 and 2 illustrate one of the more significant changes in population trends that has occurred in the last half of the century: increase in life expectancy. Figure 1 depicts how life expectancy from birth has increased from 62.9 years of age in 1940 to 74.5 years in 1982. Life expectancy at age 65 also has increased significantly, as seen in Figure 2. Currently, when we reach age 65 we can expect to live approximately 17 more years. This particular statistic means that 20% of your life is still ahead at age 65.

FIGURE 1

LIFE EXPECTANCY AT BIRTH

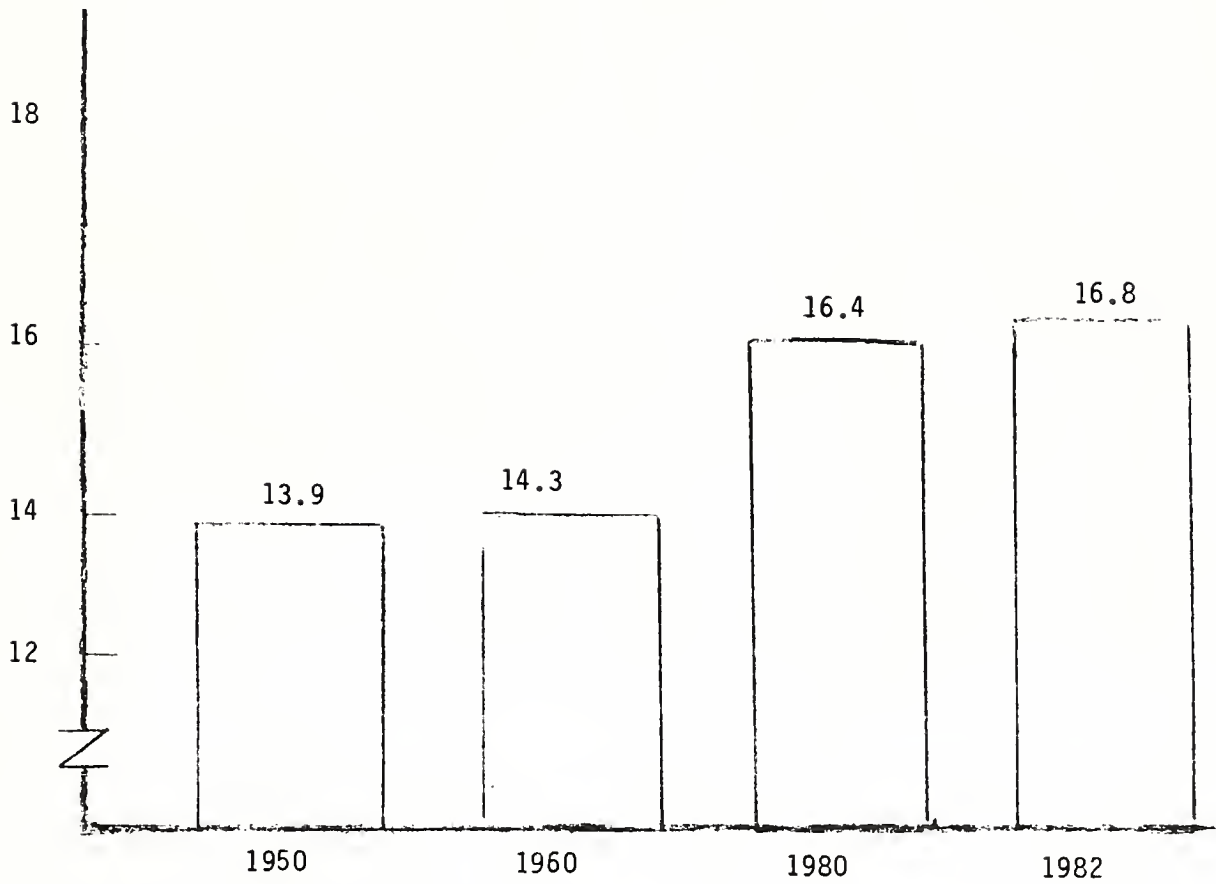


Source: National Center for Health Statistics;
Social Security Administration

FIGURE 2

LIFE EXPECTANCY AT AGE 65

Life
Expectancy
(In Years)



Source: U.S. National Center for Health Statistics

These figures have tremendous implications for the future. For providers, they indicate an opportunity to develop programs to serve the older adult. However, as this population is so diverse and is changing every day, further market segmentation is necessary to understand the characteristics and needs of each segment. To assist in planning and targeting the elderly, the group has been segmented into 3 distinct age categories:

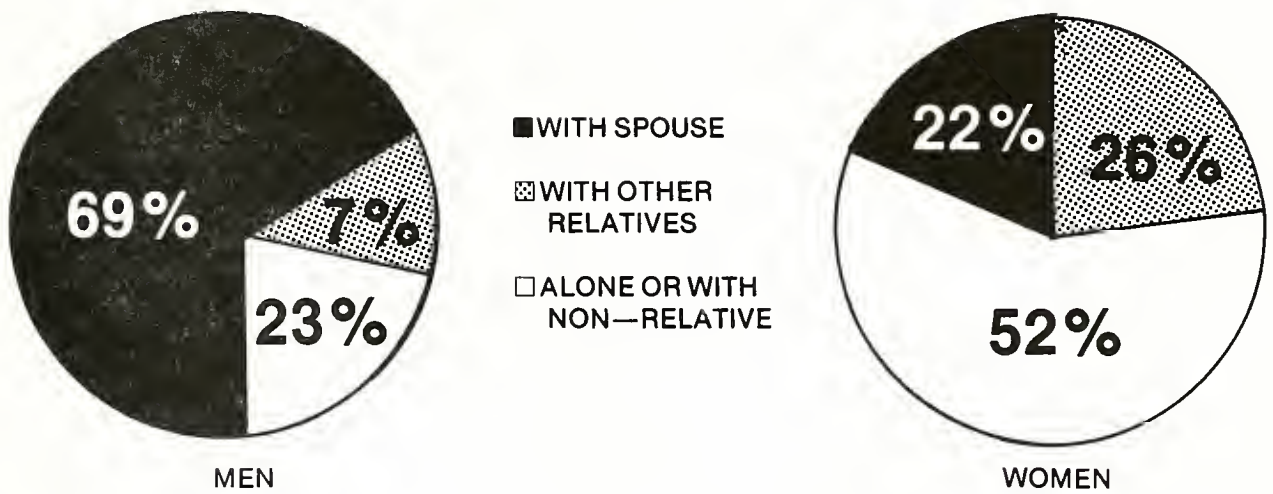
- 65 - 74 years
- 75 - 84 years
- Over 85 years

The fastest growing age group is the over 85 segment, which is expected to grow by 40% between 1982 and 1990. This growth has great implications for health care as the over 85 population experiences a disproportionate amount of illness and disability. This older adult segment, therefore, represents those with the greatest need for both acute and chronic health care services.

Demographic statistics also point out that aging is a women's issue. At age 65 women outnumber men 1 1/2 times, and by age 85 there are almost 2 1/2 women for every man. The older adult consumer of health care as well as the caregiver, therefore, is likely to be a woman. Issues related to these statistics should be considered when you plan your programs. You must hire your personnel, plan your marketing strategies and build your facilities to accommodate the needs of the particular population you are serving.

Another demographic statistic to consider when studying the older adult population relates to their living arrangements. These statistics are graphically displayed in Figure 3 on the following page. Note that 69% of men over age 65 live with a spouse while only 22% of women over 65 live with a spouse and 52% live alone. This represents opportunities for providers as these women need a variety of special support services and products. It is safe to say that women now in their late 50's are not as adept at doing finances or home maintenance as would be a man of that age. They have relied on their husbands to handle these tasks. Consider services, therefore, that would assist women in these areas. The range of service and product opportunities for men, while overlapping slightly, for the most part differ. Those services directed to men could include such things as post-retirement activities. Keep in mind this will change as more women remain single and have lifetime careers.

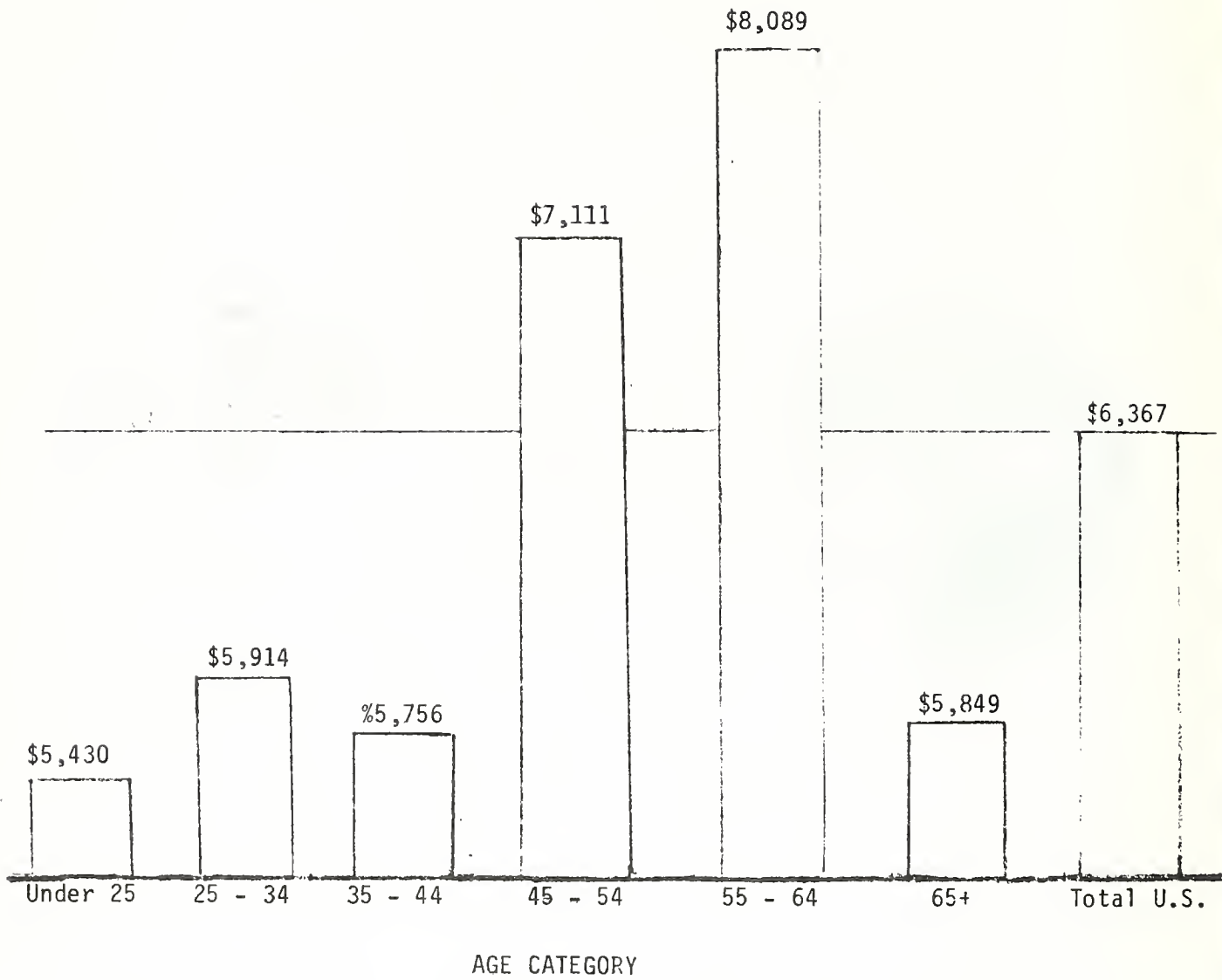
FIGURE 3
LIVING ARRANGEMENTS OF ELDERLY



Source: U.S. Bureau of Census

FIGURE 4

1978 U. S. PER CAPITA INCOME



Source: U.S. Census Bureau

Before I move on to the next force, I would like to briefly mention some economic demographics as they relate to the elderly. Figure 4 presents data from the U.S. Census Bureau on per capita income. As you can see, the elderly do not necessarily have the financial burdens that have so often been associated with them. It is particularly interesting to note that those over 65 have a slightly higher per capita income than those between the ages of 35-44. Given this knowledge, there are opportunities to design programs that focus on pre-retirement and comprehensive retirement planning. This would be challenging and require lots of creativity, yet it can also be profitable.

Related to health status, there are numerous diseases and degenerative conditions which create problems for many older adults. For example, 25% of people living outside of institutions over the age of 65 have incontinence problems. Seventy-five percent of people living in institutions also have incontinence problems. Here is an opportunity for developing education programs and new products.

It is important to note another problem area for the elderly is accidents/falls and the resulting damage to their skeletal and muscular systems. Accidents are the fourth largest cause of death in people over the age of 65. This is a key fact to remember as there are safety measures that can be taken to avoid these accidents, such as putting up grab bars, changing a knob on a door to a lever, or eliminating scatter rugs. As you can see from even this brief discussion of demographics, the older adult faces many obstacles and problems that require individualized attention and treatment. You have the opportunity to focus in specific areas and to develop teaching and other support programs to assist them to improve their quality of life while increasing your revenues.

3. LABOR AND RESOURCES

Labor and resources is the title we use to categorize the third external force affecting the health care industry. The lack of availability of trained personnel to care for the elderly is a key issue. Unfortunately, there are not enough specialists trained to care for this population. A few statistics from the Wall Street Journal illustrate this point. One article states that there are only 40 geriatricians in the country and only 6 fellowship training programs. Another article details that only 17% of all physicians actually visit nursing home patients. Yet, there are more elderly patients in nursing homes than there are in hospitals. Another important statistic estimates that 15-25% of all elderly people have significant mental health disorders, and 21% of this group live in nursing homes. However, mental health training of nursing home staff is virtually nonexistent.

The picture is not totally bleak as there are some programs that focus on the older adult, such as the geriatric nurse practitioner program at Mountain State Health Corporation. In addition, many

companies in the health services industry, such as Medical Personnel Pool, Quality Care, Kimberly and Norrell, are attempting to provide training to professionals in the care of the geriatric patient.

As a provider of health services, you must be sensitive to the unique needs of the older adult population. In order to do this, it is wise to invest time and effort into educating personnel. One way to do this is by tapping the expertise of the aforementioned health care companies and the schools dedicated to furthering geriatric education. In our experience in conducting such sessions, we have found that health care managers also need education and training as they become more involved in programs for the elderly. By expanding your internal programs to include personnel training for the care of the older adult, you have an opportunity to be a frontrunner in this expanding market.

4. TECHNOLOGY

The last force I want to bring to the forefront is Technology. Popular belief holds that the implementation of the Medicare prospective payment system has been the major force driving the shift to alternate site care and home care. In reality, technological advances have also played a major role in the growth of alternative site care and home care. The availability of equipment and services tailored for off-site and/or home use has diminished the complete reliance on sophisticated in-hospital technology. As a result, the choices open to patients and providers have expanded.

The impetus for these technological advances stems from a variety of sources, such as consumer demand, demographic shifts, and changes in disease patterns. Medical product companies, therefore, have increasingly directed research dollars to the development of labor saving devices, information systems, selfcare products, and non-invasive technology; all of which contribute to enabling the patient to be maintained in the home.

Information technology and the computer have also had a tremendous impact on health care. Many new programs have been made possible for both the elderly and the general population by computer age technology. One example is the Plato Stay Well program which places patients in behavior modification models. Should you want to stop smoking, stop eating, or stop drinking, you tell the computer what you have done one day, and the computer tells you what you can do the next day. Hospital Satellite Network, another example, has developed programs which utilize existing television equipment to educate medical staff on disease patterns and caregiving. Most of you have heard of Lifeline, a communications device which has been very valuable in improving security for the elderly living alone.

In summary, the impact of these four forces is an uncertain future. To ensure your position in the future, it is imperative that you evaluate these forces and their impact on your individual service

areas. Do not rely on national statistics; look closely at your situation and develop strategies that will utilize your strength and will fulfill the needs of your community.

Finally, tremendous opportunities are available to you that need only to be tapped. How do you identify these opportunities in your individual markets? You have a fabulous resource in your own hospitals that is often overlooked. The patients! You can ask them questions about their needs and desires, their likes and dislikes. You do not have to spend thousands of dollars doing market research. You could develop a simple questionnaire and distribute it to the patients in your own facility. They can serve as valuable resources to supply you with the necessary information you need to develop strategic plans to serve the older adult population in your marketplace.

IDENTIFICATION/EVALUATION OF THE OPPORTUNITIES AVAILABLE FOR HOSPITALS TO DEVELOP AGING-RELATED BUSINESSES

THINK BROADLY

In looking at the opportunities in a marketplace, it is important to first lay out all of the potential options available. Once this is done, it is then much easier to identify and evaluate those particular markets and products which best fit with the overall goals and objectives of your hospital. In this section of our presentation, I will focus on identifying for you all of the many aging-related opportunities your hospital might want to consider. It is then up to you to narrow down the choices which might have potential within your own markets.

The following table lists some of the broad industry categories which hospitals should consider when evaluating potential aging-related opportunities.

HOSPITALS HAVE MANY HEALTH AND NON-HEALTH RELATED OPPORTUNITIES TO SERVE THE NEEDS OF THE ELDERLY AND THEIR FAMILIES



Hospitals should consider not only service opportunities, but also the potential to sell or provide products to assist the elderly. Lifeline is an example of a very successful product which can assist the security needs of both the elderly and their families. And, the market is growing for ADL (assistance in daily living) devices to aid the elderly.

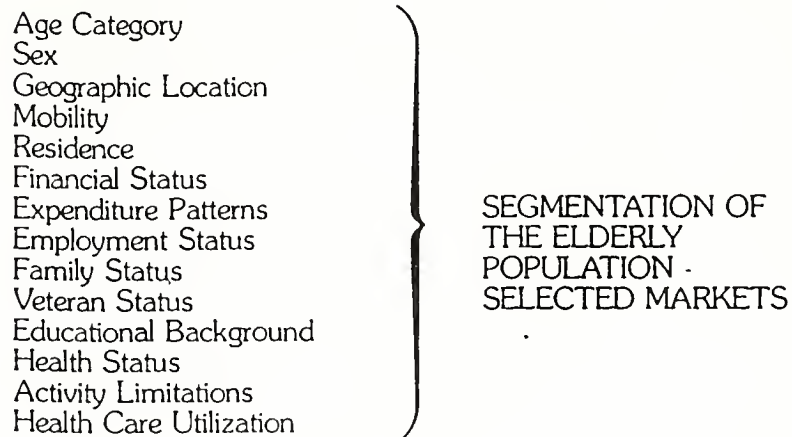
Later on I will discuss some of the specific opportunities available in the above industry segments.

SEGMENT YOUR MARKETS

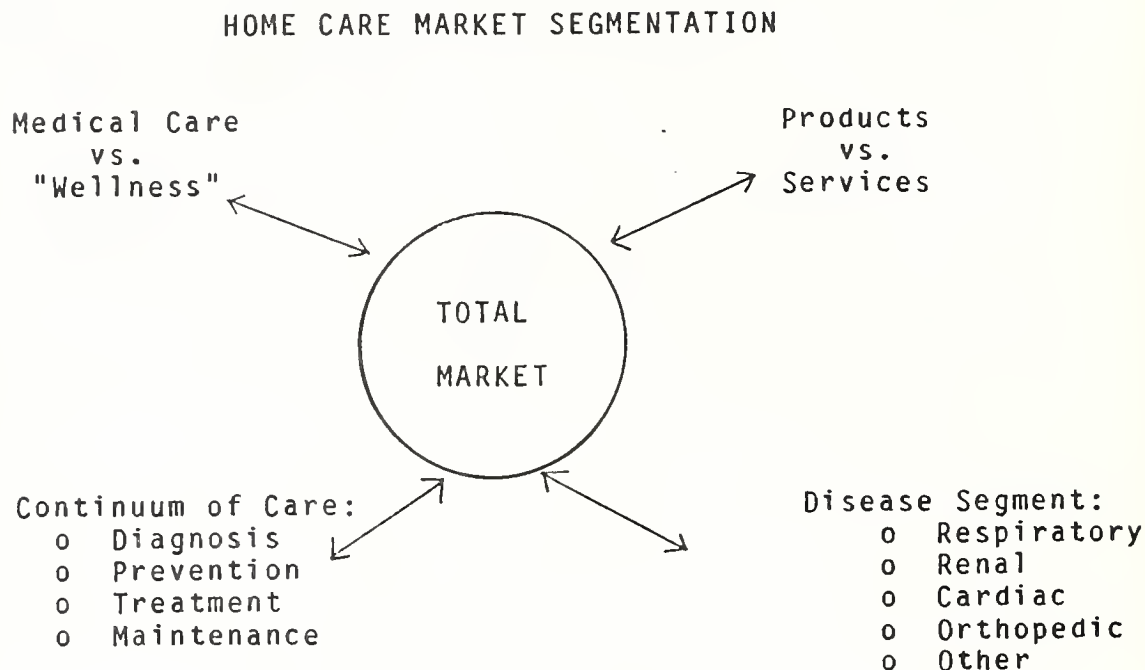
As described in the earlier part of this presentation, the elderly customer market is complex and diverse. There is no one elderly market, but rather a multitude of different segments based on the particular needs, demographics, health status, and other characteristics of older adults. An additional segment of the older adult market which is often missed is the relative or "caretaker" segment. This may include children, other relatives, spouses, and friends. Their concern and responsibility for an older person or relative often places them in a position of having or wanting to purchase particular services and/or products for them.

The following exhibit lists just a few of the many ways to segment the elderly population. All of these different consumer characteristics should be evaluated by hospitals within their own market areas. This analysis is necessary before any final decisions can be made regarding entry into aging-related businesses.

*The "Over-65" Population Must Be Segmented
Into a Variety of Markets Due to the Diverse
Characteristics of Elderly Individuals*



Besides looking at consumer segments, hospitals need to be segmenting aging-related markets in other ways. I will give an example of how one might segment the home care market, a market characterized by high elderly usage. As shown in the following exhibit, we can segment this market in four major ways:



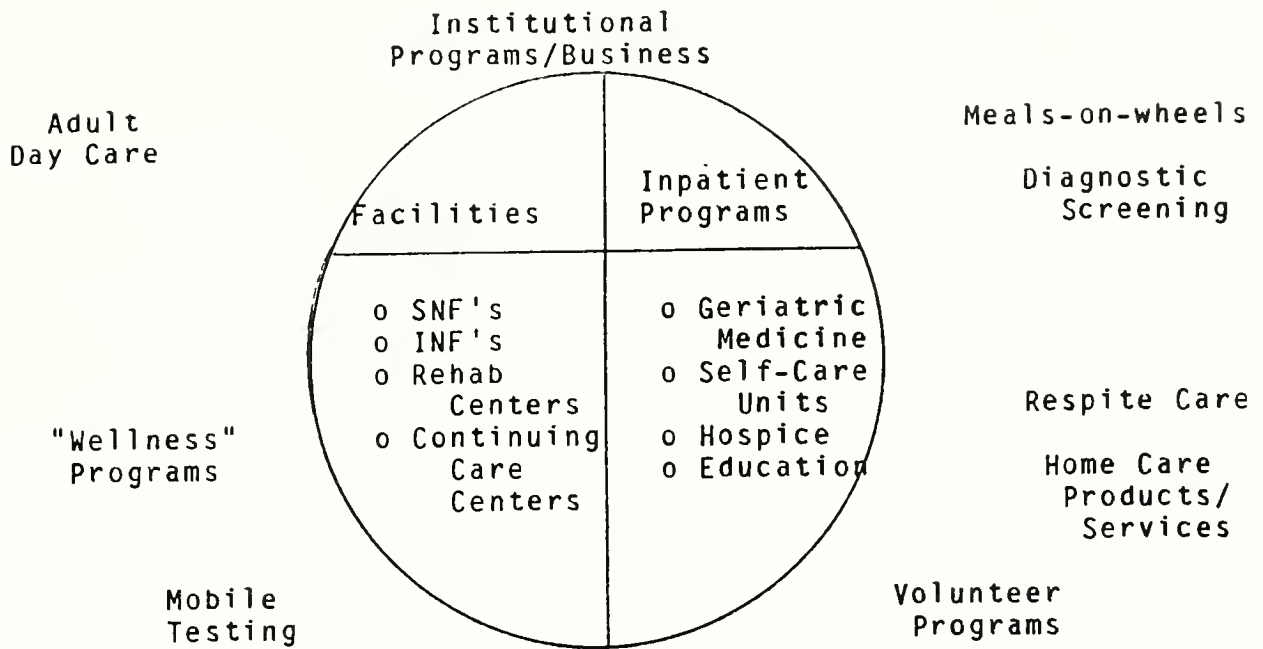
By segmenting the market in this way, providers can then specialize and target those particular segments having the greatest potential. And, marketing programs can be developed which particularly target the needs of different segments.

DIVERSIFICATION OPTIONS: HEALTHCARE

I will begin my discussion of opportunities with healthcare opportunities since you are probably more familiar with these. Those of us in the healthcare industry have been accustomed to relating opportunities to serve the elderly with such services as geriatric programs and nursing homes. However, these are only a small part of all of the programs which a hospital can provide to assist the elderly. And, we need to look beyond the critically ill elderly segment to seek out opportunities to serve the growing and larger segment of "well elderly."

On the following page is an exhibit which shows some of the many health-related diversification options available to hospitals:

AGING-RELATED DIVERSIFICATION OPTIONS: HEALTHCARE



AGING-RELATED DIVERSIFICATION OPTIONS: HOUSING

The market for specialized types of elderly housing is growing rapidly as the population ages. Contrary to popular belief, most elderly do not move to the sunbelt, but instead prefer to stay in their own community where they have friends and familiar surroundings. This desire to "stay at home" creates opportunities to serve the needs of the elderly for smaller, more efficient housing, shared living arrangements, and modification of existing homes to make them safer and more adaptable to elderly with disabilities.

The following are some of the many elderly housing-related opportunities available for hospitals:

- Retirement communities
- Specially designed apartments
- Shared housing
- Congregate living
- Granny flats
- Home modification services
- Home equity conversion*

*A financial arrangement allowing an older person to remain in their home but receive monthly annuity payments based on the sale of the home to a third-party.

In looking at housing options, hospitals must take considerable care in identifying customer segments up-front, and determining their particular needs. Housing facilities can be designed to appeal to all income levels, so the market to be served will greatly depend on the types of consumers which can be reached by the hospital. And, since the majority of elderly are women and often single, security systems are particularly important.

AGING EDUCATION: THE CRITICAL LINK

Hospitals targeting the older adult market will find ample opportunities available to provide aging education programs. Education should begin within the hospital, with all employees being made aware of the particular needs of the elderly and the often misunderstood myths about them. This education is particularly critical for employees who will be working closely with elderly persons and their families. In addition, there are opportunities to provide public education programs directed toward the elderly and their children and care-takers. These may not be money-makers, but can be valuable marketing tools.

EVALUATING THE OPTIONS

This brief time has allowed us to only touch on some of the many opportunities available for hospitals to develop aging-related businesses. Once you conduct your own market assessment, you will undoubtedly uncover additional options. Once all of the potential options have been identified, the next step is to narrow them down to the few worth really pursuing.

The following grid is a valuable tool for comparing your potential opportunities:

RISK/RETURN PORTFOLIO

Evaluation Criteria

| <u>Options</u> | <u>Capital Req.</u> | <u>Risk</u> | <u>ROI</u> | <u>Image</u> | <u>Goals</u> | <u>.....</u> |
|-------------------|-------------------------|-------------|------------|--------------|--------------|--------------|
| Nursing Homes | H | | H | | | |
| Mobile Testing | | | | H | | |
| Education | L | L | L | H | | |
| Transportation | | | | | | |
| . | | | | | | |
| . | | | | | | |
| . | | | | | | |
| . | | | | | | |
| | | H= High | | | | |
| | | L= Low | | | | |

By using this risk/return portfolio or a similar concept, hospitals can effectively evaluate the appropriate mix of businesses which, together, support a financially viable and community-oriented program. Some programs may not be attractive financially, but may help promote the hospital's image or other aging programs.

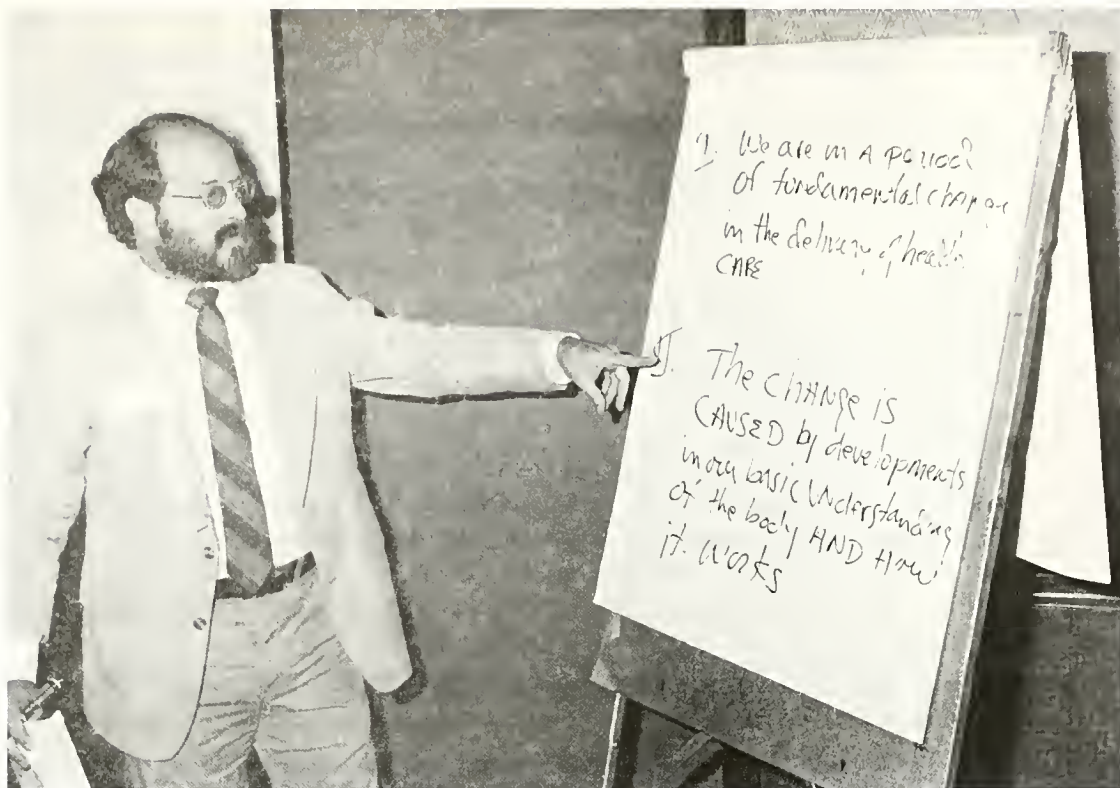
As hospitals decide to develop major new businesses which require large up-front capital investment, they must be careful not to expect immediate returns. Often the higher the financial returns, the higher the risk, and longer the lead time to break-even. One way to reduce this risk is through acquisition of joint ventures. Acquisition may require large capital commitment but the advantages are that a known quantity is purchased and there is no development time. Joint venture can allow sharing of risk and up-front capital, and can also be a way to allow physician participation.

IN CONCLUSION

The "aging of America" is happening in many communities today, and represents some exciting and new opportunities. It also presents many challenges to those of us in the healthcare industry, as there are increasing efforts to control the past increase in financial expenditures for elderly programs and services. Hospitals do have opportunities to serve the needs of the elderly without sacrificing their bottom line. But, it will take both creativity and a willingness to enter new and riskier businesses, often in non-health care areas. And, creativity will be required to find new sources of capital, whether through ventures, grants, or private philanthropy.

We hope that our presentation was helpful in giving you some new insights into older consumers and the opportunities for your hospital to develop aging-related businesses. There is a wide-open market out there for those who can forget their past myths about the elderly and really view them as positive, healthy, and willing consumers. These are, indeed, the characteristics of the majority of our older adult population today.

Thank you.



Douglas Henderson-James

"THE TECHNOLOGY EXPLOSION--DETERMINING NEEDS"

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It has become commonplace to talk about the new directions in health care delivery that evolving payment mechanisms are causing. However, these new patterns of reimbursement are but one of three major changes taking place in the delivery of health care in the United States and the least significant in the long run. The other two changes are the explosive development in the knowledge base of the basic sciences upon which medicine rests and the behavior of patients. The rapid expansion of our understanding of the body and how it functions is in the process of creating a major turning point in health care organization and delivery.

The only comparable shift to the one we are undergoing occurred between 1880 and 1910. During these 30 years the number of hospitals increased from 175 (census taken in 1873) to approximately 6,000 in 1910. In less than the working lifespan of a hospital administrator, the country went from virtually no hospitals (of any type) to 120 general hospitals per state.

Also during this period of time the two key professions of medicine took the shape so familiar to us. The nursing profession was born, grew and matured during those 30 years. At the beginning of the 1880s, there were no schools of nursing in the country. By 1910 one out of every four hospitals in the country had a school of nursing. At the same time the "regular" physicians gained control of the practice of medicine, with the following results: (1) medical licensure laws; (2) major reduction in the number of medical schools and physicians; and (3) required hospital experience before practice.

The financing of hospital care also changed. The base shifted from philanthropy to the private patient, as hospital administrators wrestled with the problem of hospital per diem cost increases. These cost increases came from two sources--increased demand and the consequent expansion of the hospital coupled with competition to provide the most modern and hotel-like rooms possible, and changes in the way medicine was delivered, particularly the technology of the new medicine (sterile ORs, rubber gloves, X-ray equipment).

The locus of power shift from the trustees of the hospital who, because they paid the bills, made all the decisions about the hospital, including who was admitted and when he or she was discharged. The physician was the recipient of the shift, because the physician now controlled the source of financial health, the pay patient. The hospital that did not accommodate itself to its medical staff stood in danger of losing those physicians.

The picture that is being drawn is a familiar one. It is the picture of the health care system as it exists today. The hospital is the center piece. The physician is the determiner of medical practice. The nurse is the principal care giver. The physician is trained in and centers his practice around the hospital. Without physicians the hospital is a failure. The basic financial arrangement is with the patient or the third party payor, who has agreed to pay all or part of the patient's bill. None of this pictured existed prior to 1880. This change was the most fundamental revolution in the delivery of health care in the United States.

Today, we are at a similar turning point in the history of health care delivery. We are at this point because of the developments in the knowledge base of medicine, because of the computerization and miniaturization of medical technology, as well as economic and social pressures in American society.

While there are many areas in the knowledge base that can be discussed, this section of the paper will focus on cellular and microbiology. The most notable of the developments in biology in the last decade has been the growth in knowledge about recombinant DNA (RDNA). The direct results of this knowledge is the production of human growth factor and interferon. These two drugs, if we may call them drugs, are just the beginning of the new generation of very pure strains of drugs, enzymes, proteins and amino acids that RDNA will produce. These items will be produced in large quantities and at low cost compared to present production costs. Yet, it will not be this facet of RDNA that will have the biggest impact. It will be the ability to correct genetic abnormalities. The ability to replace one gene with another is in the research stage now. Genes that control growth in mice are being replaced by those in rats to produce "mighty mouse" mice.

Another development in the field of micro-biology is the development of mono-clonal antibodies. Mono-clonal antibodies are just what their name says they are: clones of antibodies that react to one, and only one body, a single type of virus, or cancer cell, or bacterium. This unique ability makes mono-clonal antibodies ideal for diagnosis of diseases, particularly cancers. They are able to identify the presence of a specific body at levels far smaller than current tests, thus allowing much earlier detection of disease. Similarly, mono-clonal antibodies seem ideal for the delivery of drugs to the very site of the cancer. Such delivery systems will not affect the cells adjacent to those with the cancer since the mono-clonal antibodies will only attack the one single type of cell for which it is programmed.

In yet another area, research is beginning to open the door to significant medical diagnosis and therapy of diseases of the brain. Clinical tests on a variety of memory enhancers indicate that several have real promise. Those with promise have been able to slow the loss of memory and even help recover memory. Work with depressed patients has shown the largest recovery factor, as much as 80%. The potential

for patients suffering from senility and Alzheimer's disease is good. In studies of those with no memory loss (college students), their ability to recall facts, events and ideas improved by as much as 20%. Likewise, the ability to improve ordinary memory ability holds much promise and/or threat--consider a required additive to milk, bread, pasta products that improves memory by 20%.

Research in mental illnesses is establishing a bio-chemical basis for many of the major mental illnesses. Today, this is not surprising. There seems to be a basic assumption that mental side of man is as materially based as the physical side. That is, the release of hormones, enzymes, and the like govern our emotions. It seems logical that the malfunction of the production of needed hormones, enzymes, amino acids, etc. would produce non-normal behavior. The work on schizophrenia suggests that this hypothesis is true. Expect a whole array of drugs to control mental illnesses and abnormal behavior.

A third area of brain research is that of partial brain transplants. Current work in Sweden indicates that it may be possible to cure Parkinson's disease with brain transplants. Recently reported research in the U.S. indicates the same thing. In addition, some forms of sterility may be cured through such transplants. The potential for the cure of brain damaged individuals has a higher probability than at any time in the past. Research on regeneration of central nervous tissue, once thought not to occur at all, has shown that it is possible to regenerate such tissue. Again the potential for aiding spinal cord injury victims is much greater than a decade ago.

Behind the work on the brain and the development of RDNA is the growing body of knowledge that is slowly destroying the distinction between food and drugs. The more we know about the processes of the cell(s), the more we realize that that which cause the cell to do its thing are the basic components of DNA and the larger molecules they make up--the amino acids. Lecithin is but one example. Is it a food or a drug? Very pure quantities of lecithin (90%) in moderate dosages were responsible for some of the memory enhancement noted above. While we currently give certain drugs to schizophrenics, tests with certain amino acids indicate that they contain the missing building blocks that control schizophrenia. Are amino acids foods or drugs? Are large quantities of pure amino acids food or drug?

On another level, the development of "silver bullets" may well be in the making. Mono-clonal antibodies provide what seems to be an excellent vehicle for the delivery of drugs to the specific site where the drug is needed, without the damage that now occurs with the modes of delivery currently available.

While the understanding of the body and how it functions proceeds apace, the development of equipment to analyze how the body functions and to repair the body keeps pace. In radiology, we are moving from the visualization of anatomy to the visualization of physiology. The developments of PETT and NMR scanners are the beginning of our ability

to watch the body work--at cellular and smaller levels. This development will enhance medicine's ability to detect illness at its earliest stages. With corresponding improvements in survival rates.

The spread of digital subtraction radiology is changing who can use radiographic equipment and where the equipment can be used. Many specialties in medicine exist because of the lack of specific information that is easy to understand. The introduction of programs that take such information and make it "reader friendly" reduces the need for the specialty that developed to read that information. Such is happening to radiology. What large hospital has not had requests for digital subtraction radiographic equipment from cardiologists, from internists, and others? Where should such equipment be located, in the ER, in the OR, or only in the radiology department?

The issue of location is also important to the clinical laboratory. By 1990, the clinical laboratory will be entirely computerized. The units will be smaller, more versatile, and more powerful. This will lead to the break-up of the centralized laboratory, except for the storage of records. Routine tests will be done at site or on the floor. This development, coupled with the growth in home computers and mono-clonal antibodies, will create a tremendous home testing market, which pregnancy testing has just begun to explore. Both radiology and laboratory results will be digitally stored with retrieval possible anyplace where there is a phone, and in some cases where no phone is available (via satellite).

Whatever we say about surgery today, it will not be true five years from now. A certain well known Dallas heart surgeon is developing a national open heart surgery service that will do open heart surgery (by-pass surgery) for under \$5,000 a procedure, all expenses included. Yet, there is a real question of how long such a service, national or not, will be needed. Working with lasers, surgeons have vaporized plaque build-up in leg arteries. The procedure is a one-day operation. Lasers, computers, and robotics will revolutionize surgery as thoroughly as did antiseptic techniques and the X-ray did in the 1880s and 90s. Already, the U.S. has had its first robot performed surgery. And though it may sound surprising, the site of the surgery is quite logically the brain. The exquisite precision that is needed in the cuts makes brain surgery ideal for computer guided robotic surgery.

If surgery is being revolutionized by lasers, computers, and robotics, then we are already in the midst of another major revolution--the creation of life in the laboratory. Our present technological ability to store, freeze, and manipulate the components of the creation of a human is just the tip of the iceberg of the technology dealing with fertility. We are storing sperm, uniting egg and sperm in petrie dishes, storing zygotes, and freezing embryos. What was once a science fiction method for traveling to the stars is today's reality. As was stated at the beginning of this section, this is but a small, small part of the growing knowledge base that is causing fundamental change in organized delivery of health care. This paper could have covered the work in aging, or the work on artificial blood, or artificial organs, or transplants, or the growth of organs, limbs, fingers and toes, but it did not. You are left these and other areas to discover.

What does all this mean? Quite simply, it means that we are changing our basic definition of medicine, we are changing who provides health care, and we are changing how that care will be delivered.

The historical definition of medicine is to care for and to cure those injured or sick. The developing definition includes care and cure as it adds creation and death. No explanation is needed for the creation aspect of this new definition, but that of death needs a sentence or two. The development of hospice care makes legal and socially acceptable what many doctors have done throughout the ages, making bearable dying for the dying. However, this official recognition of medicine's role in death is new--as is the general acceptance of hospice care. This is but the beginning of a basic change in our society's view of death. We are becoming more tolerant of those who try to and who do end their lives. Such tolerance brings with it the first steps in which medicine plays an active role in the death. The Cerebral Palsy victim, on the west coast, is but one example of the type of requests that medicine will receive. The political statement by the Governor of Colorado, that people with serious chronic illnesses should die and get out of the way of those younger, is just the beginning of our political process of dealing with this topic. Medicine is responding by creating specialties, for physicians--Thanatology, in nursing--hospice care. This new medicine moves us from the question of who shall live, to what shall we make, and how shall we die.

As we redefine medicine, we are also changing who can practice medicine with its inevitable divisiveness. The divisions are among physicians, between physicians and other practitioners, and between physician and patient. The tension among physicians over control of turf will increase in the coming years. The battles between radiologist and everybody else will be something to watch or participate in. Similar battles will occur between pathologists and everybody else. The brief discussion on the technological developments gives a glimpse of the reasons why such tension will occur.

Internal struggles will not be the sole arena for the control of the practice of medicine. As the technology of health care becomes more sophisticated, the physician has to allow others to assist him. The medical scientist (chemists and physicists) and technicians become as important as the physician when medicine uses CT scanners, linear accelerators, NMR, etc. As more and more of the knowledge base becomes less and less gray, the less important will become the radiologist and the more important will become those who maintain the equipment, those who make sure that it reads correctly and that it is set properly. (Gray knowledge is the knowledge of specialists because it takes years of study to read grays; black and white knowledge can be understood by most everybody. Take the case of an X-ray of a good, clean broken bone. It is black and white. Anybody can read that X-ray, one does not need the radiologist. However, a hair line fracture could be another matter. The lack of clean resolution requires somebody with the training and years of experience to read the image. Develop a program to read the image and make clean the resolution, without

any loss of information, and presto, anybody can read the new image. So much for the radiologist.)

The growing recognition of chiropractors, podiatrists, and dentists as members of hospital staffs is but one sign of the increased competition physicians face from other providers of care. The competition is particularly crowded in the mental health field but growing in the physical health field. While physicians, in this state, won the most recent court battle over the ability of nursing to invade the fringes of medicine it will not be the last battle nor will physicians win them all. The growth of PAs, nurse practitioners, and nurse midwives will threaten the practice of physicians who will respond with unsuccessful attempts to limit their numbers. At the same time these "lesser doc's" will attempt to remove themselves from under the control of physicians. Nurses will go out on their own in greater numbers than at present. In the areas of diagnosis and evaluation, there will be direct competition with physicians. The whole area of diet control is but one example of nurse competition with physicians. In Durham, there are seven physician-run diet programs, at least five nurse-run programs, and several chain programs.

The last area of battle for the control of medicine will be between the physician and the patient. Much of the new knowledge lends itself to home usage. The developing mono-clonal antibody tests are perfect for home use. Disposable test tubes, packaged in attractive dispensaries, coated with the mono-clonal antibody, will sit in the medicine cabinet. On a monthly basis, or some other regular interval, the individual will prick a finger and see what if any signs of pre-cancer development exist. The blood will change color according to the type of cancer involved. (It is important to know that there are over 200 companies in the U.S. working with mono-clonal antibodies, and 100 plus companies engaged in RDNA work. And the U.S. is not the only country involved in this research.)

Particularly in the areas of diagnosis and evaluation, the patient (consumer) will be his or her own physician. This will extend to therapy as the breakdown between drugs and food develops.

All of these challenges to the physicians' reign will be assisted by computers and robots. How do PAs and nurse practitioners function away from the physician? They use protocols to determine what should be done with a patient. Protocols are simple branching exercises. If the patient answers yes to this question, follow this path; if the answer is no, follow another path. This is what computers do best. Somebody is going to make a fortune selling those protocols to those of us with access to a computer. Available now are software packages that act as one's psychologist. Far more complex diagnostic computer programs are under development at several medical schools. One general medical program has been so successful that it is routinely used at the ER of a hospital associated with the University of Pittsburgh's medical school.

The organization of medicine cannot remain static with this magnitude of change occurring around it. The control of the care of the patient is going to continue to move away from physicians and toward those who control the finances of the care. In general, HMOs, PPOs, and other forms of capitation systems tend to place the physician in the role of a technician who follows well defined systems of procedures. And it is toward capitation systems of payment that the health care system is moving. Past advocates of the DRG system, such as Paul Ellwood, are moving away from that system to HMOs because the DRG system does not do the one thing necessary to control the rising consumption of health dollars, keep the patient out of the hospital. In fact, the incentives are just the opposite. The more admissions of the right type, the better off the hospital. Mr. Ellwood is now arguing that the whole reimbursement system should be a capitation system. Similar arguments are being heard from the architect of the legislation that established the DRG system of reimbursement, Representative Gebhart. Gebhart and Kennedy have introduced a bill that will put ceilings on the amount of money that goes into a state from federal coffers. If there is any movement in changing reimbursement mechanisms in this country, it is toward capitation.

The location of services is moving and will continue to move away from the hospital and toward the ambulatory setting and to the home. The development of birthing centers, ambulatory surgical centers, nursing centers, and the myriad substitutes for the ER are but the most visible signs of this movement. Much of the technology and knowledge base developments mentioned earlier will accelerate the movement out of the hospital to another site. This will cause the giving of care to be both more fragmented and part of a system of providers. The specific site of care will include various outpatient centers, many catering to one specialty of medicine (plastic surgery, Ob-Gyn), the physician's office, the hospital, special symptom centers (pain, headache, depression, stress), rehabilitation centers (physical ailments, recovery from operations, drug and other dependencies), urgent care centers, doc-in-the-box, and new ones too new to name.

Much of the paper work, diagnosis, evaluation and follow-up care will be done by the developing communications capabilities of fiber-optics, laser disk storage, retrieval and playback, computers and satellites. In the ambulatory center, the physician's office and in the hospital, much of the daily routine work of seeing patients, keeping and checking charts, writing prescriptions, etc. will be done without the patient coming to the center, the physician, or the hospital. The new communication systems and networks will encourage home care of all types: (1) at home telemetry; (2) at home self care via computer driven protocols and psychology software; and (3) at home evaluation, diagnosis, and treatment. These new communications systems will also allow the development of centralized data banks of medical knowledge, patient, and community histories.

These changes will be hastened by economic and social pressures in the society at large. The economics of the practice of medicine is such that hospital care is becoming the care of last resort. The

economic pressure will be to move all services out of the hospital as soon as they can be done in a less expensive place with comparable quality of care. There is no real reason to assume that this development will not continue. Changes in technology and the knowledge base of medicine are pushing the system in the direction of more ambulatory care, but knowledge and ability do not have the same urgency as an economic crisis.

The level of general education has been rising the last 20 years even as the top of the population scores less well on tests. This means a population that is capable of and desires to learn more about taking care of itself and about health and medical care. This trend has several consequences for health care: (1) there will be less reliance on physicians as the sole source of knowledge and action about health and illness; (2) there will be more involvement in physicians' decisions about diagnosis, evaluation, and therapy; (3) there will be more willingness to use alternative services (birthing centers, ambulatory surgery centers, doc-in-the-box); and (4) there will be more self-diagnosis, self-treatment, and self-referral.

Consequently, the health care system of the future (2000) will have the following characteristics:

A* The hospital will be limited to the following--

1. Elective surgery of the most sophisticated type, neurosurgery, transplants, implantation of artificial organs, restructuring, creation and modification of life.
2. High risk deliveries; and
3. Trauma.

B* There will be new institutions that will be halfway between the hospital and ambulatory care settings.

1. They will be limited to stays of less than four days for acute care.
2. They will be limited to stays of less than three weeks for respite care.
3. These units will be used for observing those who are delivering or about to have or just have had ambulatory surgery.
4. They will be used for the stabilization of patients prior to movement to a hospital.
5. They will be used for the respite care of sick individuals of all ages.

C* The center of the health care system will be the Ambulatory Health Care Center (AHCC).

1. It will consist of day medical care, day surgical care, private or group practice offices, and an ancillary support division.
2. The AHCCs will be physically joined with the new very short-stay institutions.
3. The financing of most care will be prepaid.

* However, most care will be given in the home.

* The major focus of the system will be evaluation and early diagnosis and treatment.

What does this mean for the small hospital? For the small hospital to survive into the 21st century, it will have to change what it is. It will have to become something new. Ideally, the small hospital will become a combination Ambulatory Health Care Center and a very short-stay institution. It will be organizationally linked to the large regional hospital and in a consortium of small rural health care organizations.

To move toward this ideal, or even to survive in any form, the rural hospital (and by this I mean administration) must communicate, coordinate, and cooperate. Communication has to be with five groups: (1) the board of the hospital; (2) physicians and nurses (please do not ignore nurses, they are a potential source of revenue--home nursing services, respite care); (3) the businessmen who lose business when individuals seek care outside the community; (4) patients and potential patients; and (5) the public. The message has to be divided into two parts--the future and how to bring it about, and how to survive until the future arrives. It is the administration's responsibility to help the community decide what it wants the hospital to become, in five, ten, and even fifteen years from now.

The rural hospital must coordinate its efforts with other rural hospitals. There is no sense in reinventing the wheel, nor in fighting battles alone. At the association level, at the state level, and at the national level, rural hospitals have to coordinate their activities for survival. There needs to be a unified voice speaking for the rural hospital if it wants to survive, to get access to the capital, political power, and labor that it will need to survive.

The rural hospital must cooperate with its fellow rural hospitals. Cooperate in the sense of the midwest farm cooperatives, in the sense of the developing consortia, and in the sense of systems. The models are many--there are the all rural systems, the melange (the single

big hospital and the many small hospitals), there are hospital only systems, hospital and nursing home systems, hospital, nursing home, HMO, and Social Maintenance Organization systems. The management task of change is greater than most administrative staffs in small rural hospitals can cope with. Without access to help in planning, finance, legal matters, medical staff arrangements, education, and personnel, the ability of the rural hospital to deal with the changes that new medical knowledge is creating will be minuscule at best. There will be few places for the small hospital as we know it. The small hospital must change or disappear.



Fredrick L. Soule



Ralph Brice



James Cogdell

"JOINT VENTURE CASE STUDY"

Frederick L. Soule
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Assisted by:

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FREDERICK L. SOULE

Competition is a word that takes on new meaning for hospitals every day.

Hospitals in smaller communities once dealt with only the most obvious form of competition--other hospitals in other communities. Each would have its own medical staff, and each competed to get patients to its doctors.

In larger communities with more than one hospital, competition is a little more complicated. In this situation the competition is getting doctors to use your hospital rather than the competitor's.

Now competition has become even more complicated. There is competition from:

- Radiologists and large group practitioners with their own X-ray equipment. In some places this is long-established practice, but in smaller communities this kind of competition is just beginning.
- Ambulatory surgical centers and urgent care centers.
- Organized patient groups. The health maintenance organizations and business coalitions. The weight of these factors varies from community to community right now, but all hospitals will be affected sooner or later. The challenge is how to deal with more informed consumers, and how to be a more knowledgeable provider of health care services.

A joint venture medical office building constructed on hospital land is one way hospitals can deal with growing competition.

Your hospital's medical staff strength and loyalty is essential in order to compete, and essential to becoming a more knowledgeable provider. A joint venture medical office building can help develop the kind of medical staff strength and loyalty hospitals need today.

A medical office building on hospital land, with the hospital and physicians in the building participating in the construction and occupancy of the building has a number of benefits:

- It provides a modern structure for attracting patients. In the community, it raises the public visibility of physicians with offices in the building.
- In our community, it gave positive reinforcement to the professional image of local physicians.
- It makes it easier for physicians to admit patients to the hospital, because the hospital is right next door.
- It can help recapture some of the laboratory and X-ray work being lost to other facilities.
- Among physicians in the building, dialogue increases between specialists and primary care physicians. In Caldwell Memorial's Mulberry Medical Park building, a sort of informal quality assurance mechanism has developed because physicians see each other and talk with each other more often. Our physicians have developed a pride in the building; each wants the public to relate the building to quality service.
- For communities needing more physicians, a medical office building with space ready to be developed into personalized offices is helpful in recruitment.
- Physicians have more time for their patients. A physician next door to the hospital doesn't have to drive, and doesn't have to learn two medical record systems.
- There also can be financial benefits for the doctors in the building. These benefits will be discussed later.

How Mulberry Medical Park began.

Hospitals wishing to investigate joint venture medical office buildings should make an analysis of the medical staff to determine such things as age, office location and admitting patterns. A hospital also should know its share of the patient market, and have land available for a medical office building. The hospital should begin asking these kinds of questions:

- Do physicians need a modern building?
- Do physicians want to convey a more professional image?

- Can the hospital provide adequate parking along with a building?
- What kind of ownership benefits can be given physicians participating in the project?

Caldwell Memorial Hospital has six other hospitals within 25 miles. Before Mulberry Medical Park, Caldwell Memorial had only about 40 percent of its market share of county residents. Patients were going elsewhere.

We felt the need to raise the professional image and community visibility of our medical community. We also wanted to recruit more young doctors, but there was no suitable office space, especially near the hospital. Land next to the hospital was owned by the hospital, and a long-range facility plan called for using this land for a medical office building. The plan also said that a multi-occupancy office building would be a better use of the land than several single-story buildings.

The idea for Mulberry Medical Park began to grow when two family practitioners approached the hospital with the thought of building their own office on hospital land. They had rented for 15 years and wanted ownership. Since we felt that a larger, multi-occupancy building was preferable, other physicians were asked if they would consider moving into such a structure. There was interest, and the hospital began looking for ways to make such a venture work.

Several large office building firms were contacted. They were experts at construction and well versed on cost estimates, quality of finishes and planning for space needs for doctors. But they had less expertise in organizing doctors into an ownership group and raising money for construction.

We needed more than building plans and specifications. We needed help with the types of organizations that could or should be created to achieve the goals of the doctors and the hospital. We needed a leader and organizer knowledgeable in more than cookbook building design. We needed financing options and we needed to know how the building would be run after it was built.

At this point I learned about another approach to medical office building development from another hospital administrator. He introduced me to Jim Cogdell and his development firm. Cogdell Developers Inc., offers a full range of development services including demographic studies, partnership formation, financing sources, construction supervision, building management, and consulting services. Cogdell has worked closely with hospitals in reorganization efforts, and has assisted in the formation of "for profit" corporations to manage medical office buildings. Cogdell's professional management division provides on-going support to medical office buildings through the supervision of day-to-day operational activities and

ensuring that partnership responsibilities are carried out. From Jim Cogdell we learned how to put it all together by joining the doctors and the hospital in a partnership so that we could raise the money to finance a building and reach each partner's goals.

I realized that a project of this type was a lot more involved than the build-to-rent offices I had experience with, and I recommended to our board that we work with Jim's firm to develop a proposal.

Selling the idea to the hospital board.

Up to this point we had learned a lot, but now I had to sell the idea to the hospital board. The idea of a multi-occupancy building was not new, but the joint venture part was. I focused on the reason for a medical office building--increasing hospital admissions.

Some members of the board were concerned that we would not own the building. Some had a problem with the hospital investing to make the financial arrangements easier for the doctors. But by emphasizing that we grow together and that we were not in the business to develop real estate, the board agreed to take the first step and allow a proposal to be developed. I think a valuable argument was the benefit of using physician's equity to reduce the hospital's borrowing, and the fact that the debt financing was not on the hospital's books.

Having a developer like Jim Cogdell and an architect like Ralph Brice--who as a team have completed 12 medical office buildings occupied by over 250 physicians in 9 cities in the Carolinas--was a great advantage in talking with the board. The experience Mr. Cogdell and Mr. Brice showed in their knowledge of financing, specialty design and construction gave the board confidence to proceed with development of the project.

The hospital put up the money for the development phase (the preliminary survey and preparation of the loan package). The commitment was in the low five figures and if we formed the partnership and proceeded with the project the money would be paid back to the hospital by the partnership.

Here are some of the steps we took in the development phase:

- Options for ownership and financing were presented.
- The partnership group was formed on an informal basis, and the building size was planned based on estimates of space use.
- Preliminary floor plans and site location plans were prepared.
- Preliminary financial feasibility analysis and reports were prepared, along with an estimated building budget and other documents showing such things as cash flow and tax shelter.

-- A master plan and estimated time schedule was prepared.

-- A loan package was prepared.

The form of ownership and deciding how much empty space the hospital would rent itself were major issues. The land lease also was a key item because when the building is fully leased and the hospital no longer is a limited partner, the land lease is its only source of control over the building. The writing of the land lease is critical.

JAMES W. COGDELL

Three types of ownership of a medical office building are common.

-- Corporation ownership. The corporate structure is not the way to go. Remember, you are trying to make something happen that's good for the investor, your doctor, who will go into your building and in turn will admit patients to your hospital. The corporation gives sheltered liability to the stockholders and officers of the corporation, but does not pass through any tax benefits to the investors.

-- Condominium. We and others have tried condominiums, and they are less satisfactory than partnerships. Condominium space often is difficult to sell, and often is not designed from the physician's standpoint. And since a doctor must buy a fixed amount of space, he lacks the flexibility to expand as his practice expands.

-- Partnerships. A partnership with the physicians as limited partners and someone else as a general partner has advantages. The limited partners' liability is limited to their investment. A limited partner realizes some tax advantages. A partnership structure also builds flexibility into the medical office building.

The general partner is the center of the wheel.

In a partnership venture, the physicians are the limited partners. There must be at least one general partner. If all the physicians were general partners, each would have equal voice in the management of the building. A general partnership is an unruly entity to control, and I'd advise staying away from it. One general partner is preferable, a general partner who puts together the whole package.

In our partnerships, J. W. Cogdell usually is the general partner. Among the guarantees you want to give the limited partner physicians is the right to remove the general partner without cause at any time. A lot of hospitals say they want to be the general partner and run the building. It doesn't work.

The general partner has a full-time job. He is the middle man. The general partner also must help educate the hospital board members who don't always understand why you must help the physicians to make the venture work. He is the key communications person working with the hospital, the physicians, the board, the architect and the contractor.

Where does the money come from?

One of the major roles of the developer is finding suitable financing for a medical office building. There are several sources, and it takes strong negotiations to find the best arrangement. When dealing with banks, it pays to negotiate from a very firm position. It pays to visit three or four banks, lay the specifications on the table, and ask for their best rates.

In Virginia, Alabama and South Carolina, tax exempt revenue bonds may be used for medical office buildings. There are several lenders who specialize only in medical office building financing. Banks and life insurance companies are the two major sources for permanent financing.

Right now (May 1984), interest rates at insurance companies are 12 7/8 to 13 7/8 percent and are likely to change. There are no 25 and 30-year amortizations of mortgages. The 5- to 10-year rate is about the maximum, and variable rate mortgages are becoming more common.

Variable interest rates can create problems, but there are ways to cope with them. As taxes, utilities and janitorial costs increase a percentage of these increases are passed along to the physician-tenants. As rates on a variable rate mortgage go up, this cost also is passed along by adding a variable interest adjustment provision in leases. To protect the physician who wants to settle on a fixed budget for his operating costs over the next four or five years, select a rental figure high enough to cover a potential rise in rates. At the same time, try to negotiate a loan with a "collar." A collar is an agreement on the minimum and maximum interest rates that can be charged during the term of the loan. With a ceiling and a floor on the interest rate, you know the maximum rental rate, and you make budgeting easier for the physician.

Changes in the law that may affect joint ventures.

There are two bills in Congress that may affect joint ventures.

-- HR 4170 and Senate 2062 change depreciation rules and other conditions for the proprietary partnership. They deserve watching.

Can a physician do better constructing his own building?

Sometimes a physician thinks he can. Our observation and experience tells us that a physician is better off practicing healthcare

and not trying to be a general contractor. A free-standing building now runs around \$80 to \$90 a square foot in total costs, including construction. Multi-practice, vertical-rise buildings can be built for less money. Doctors, in trying to construct their own buildings, often run into problems trying to make all the financial arrangements themselves. Another consideration for physicians constructing their own buildings is that when a doctor-built structure is completed, doctors have the continuing responsibility for interior and exterior upkeep.

RALPH E. BRICE

At the beginning of the project, the job of the architect is to look after the interests of the hospital and the partnership that at this stage is not yet formally organized.

For the hospital, we will start several studies:

- To determine the actual location of the building, and
- To determine the amount of space available for parking, and to determine zoning regulations that may affect parking.
- We look at hospital expansion plans, and determine possible relationships between the hospital and the medical office building.
- We go through half a dozen different concepts of the building itself. The building size will grow and shrink as groups demonstrate interest or lack of interest in the project.

In dealing with physicians:

- We show them real examples of a building at the first meeting, along with projections on costs, to give doctors the total picture.
- We study the groups interested in going into the building. Groups of doctors are not as simple as in the past. Many come from single-office, free-standing buildings, and are concerned about losing their identity in a multi-occupancy building. Many have their own laboratories. A key question to answer is: Can they adapt?

Other major architectural points:

- The building should look like it is part of the hospital campus. A cohesive design is important. This is best achieved by working with the hospital architect and designing the medical office building to compliment the hospital's long-range development plan.

- Space should be flexible. Hospitals can use unleased space for their own needs, and for recruiting of new physicians.
- We design buildings with a central core for public facilities. This relieves the physicians of the chore of providing public facilities on an individual basis.

FREDERICK L. SOULE

Mulberry Medical Park has been successful for Caldwell Memorial Hospital. We have recruited new physicians. Interest in modernization of the hospital itself has been stimulated because of the modern, attractive, joint venture medical office building beside it.

We feel that a medical office building can be a successful venture that can help hospitals deal with a competitive climate.



Terry H. Linn

"DRG/PPS AND THE CAPITAL MARKET"

Terry H. Linn
Partner
Ernst and Whinney
Charlotte, North Carolina

A variety of subjects were discussed at this session related to capital planning under the Medicare Prospective Payment System and the prospects of obtaining needed capital in the future. The objectives of the session were to have meaningful and informative discussions about the following topics:

- The current and proposed Medicare regulations under the Prospective Payment System and their impact on the financial operations of the hospital.
- The current and anticipated trends in hospital inpatient utilization as they relate to the concept of the product/market life cycle.
- The alternative options and strategies available for capital formation in the '80's.

CAPITAL PLANNING UNDER THE PROSPECTIVE PAYMENT SYSTEM

Medicare began implementing its prospective payment system (PPS) for acute hospital inpatient services on October 1, 1983. The shift from a cost-based to a fixed-price payment system has caused major problems for some hospitals but has also created new opportunities for hospitals. During the overview comments, it was pointed out that the prospective price-per-case payment system allows for more rational financial management and planning than did cost-based reimbursement. The idea was expressed that a hospital's survival and growth in this type of environment was largely dependent upon management's abilities to develop both aggressive strategic plans and short-term monitoring and control systems.

Two specific aspects of the calculation of prospective payment rates were identified separately and discussed in greater detail. These two components of the calculation, the case mix index and the geographic designation, have materially impacted the financial operations of hospitals in the two Carolinas and across the country.

Published vs. Actual Case Mix Index

Medicare regulations implementing Title VI of the Social Security Amendments of 1983 provide a specific methodology for computing the prospective payment per DRG which includes the combination of a hospital-specific component and a federal component, multiplied by

the appropriate DRG relative cost weight. In estimating an average prospective price per DRG, the inflated base year cost is divided by the hospital's 1981 published case mix index; the federal and hospital-specific portions are blended; and the blended standardized amount is multiplied by the hospital's actual 1984 case mix index. An example presented during the session indicated that an increase in the actual case mix index over the 1981 published case mix index would result in a significant increase, or windfall benefit, in the prospective payment rate. It was pointed out during the discussion that the case mix indices of many hospitals in North and South Carolina have increased, in most cases, at least 10 percent since 1981.

Urban vs. Rural Geographic Designation

Another aspect of the calculation of a hospital's prospective payment rate that has dramatically impacted hospitals is the urban/rural designation. As pointed out in the discussion, the prospective pricing system is as sensitive to geography as to the cost or level of providing care. A comparison of the same hospital classified first in a North Carolina non-MSA area and then in a North Carolina MSA area indicated that the differences in the labor related portion of the regional price and the hospital wage index for MSA vs. non-MSA areas resulted in a significantly different average prospective price per DRG. Hospitals located in rural areas (which may be only miles--or even yards from an MSA boundary line) are forced to compete with urban facilities but are receiving Medicare payments at much lower rates per DRG. Conversely, hospitals classified in urban areas which are maintaining operating costs per DRG at lower levels (comparable to those of rural facilities) are reaping the benefit of increased Medicare payment. In addition, the benefit to hospitals classified in an MSA area is expected to increase during the phase-in of the regional and national prices.

Current Considerations of the Senate Finance Committee

Several adjustments to the calculation of payment rates under the Prospective Payment System are currently being considered by the Senate Finance Committee. These possible adjustments were outlined and discussed:

- Elimination of the 1 percent "technology add-on" from the hospital-specific portion of the PPS rate.
- Elimination of the step-up in cost basis of hospital assets when ownership changes.
- Freeze on Medicare Part B physician fees.
- Fee schedule for lab services to be set at 62% of prevailing charge levels.
- Increase beneficiary Part B premiums beginning in 1985.

TRENDS IN HOSPITAL INPATIENT UTILIZATION

An analysis of the trend in inpatient hospital utilization from 1950 to the present was presented to the group for discussion. A graph charting total patient days per 1000 population in non-federal short-stay hospitals indicated that between 1950 and 1974, a dramatic increase in inpatient utilization occurred due to significant advances in medical technology; an increase in availability of inpatient beds; a national increase in the number of physicians; and the establishment of the Medicare program for payment of hospital benefits to individuals over age 65. The chart also indicated that in recent years, between 1974 and 1984, inpatient utilization leveled out and/or declined with declines expected to continue in the future. Recent declines in utilization may have resulted from the availability of alternative delivery systems including urgent care centers, ambulatory surgery centers, improved outpatient capabilities, and the limitations on Medicare payment under the prospective payment system.

Further discussion of utilization trends involved an analysis of the health care market life cycle. The handouts depicting the product/market life cycle were presented to session participants. The charts identified the stages of the market life cycle and the effect of the stages on volume of services, market growth rate, management styles, planning, technological change, and financial decision-making. Further discussion indicated that the health care inpatient market appears to be entering the mature market stage while alternative health care delivery systems are entering the growth market stage.

CAPITAL FORMATION: CHALLENGE OF THE 1980'S

The initial discussions of the Prospective Payment System, the trends in inpatient utilization, the development of alternative delivery systems and the appropriate strategies for responding to the various stages of the market life cycle indicate the need for hospital managers to focus attention on strategic capital and financial planning. Identification of specific forces creating the need for capital included:

- Historical erosion of the hospital's equity position
- Declining base businesses
- Replacement/remodeling of facilities
- Funding acquisitions, mergers, consolidations
- Extending services to new geographic markets
- Keeping pace with technological advances
- Funding for diversification
- Expected declines in government funding

Between 1980 and 1990, these forces are expected to create the need for approximately \$108.1 billion in debt to be combined with other sources of funds including depreciation, income and philanthropy.

Much of the debt to be issued is expected to take the form of tax-exempt bonds. Based upon an historical analysis presented to the group, tax-exempt bonds have become hospitals' major source of long-term debt. Between 1971 and 1983 hospital bond issues have increased from \$.3 billion to \$9.6 billion.

Capital Outlook

Continued access to capital is likely to be affected by the Prospective Payment System and may require the use of credit enhancements and short-term financing.

Responses to PPS

Success under the prospective payment system will require change. The discussion pointed to several strategies to consider in effectively dealing with the prospective payment system, including the following: (1) improve efficiency; (2) use available data now to identify and correct major problems; (3) improve quality of medical records and develop an integrated database to be used to determine profit and loss by DRG and develop physician and department profiles; (4) develop use standards, assign DRG at admission and initiate a concurrent review program; and (5) begin a product line approach to management and planning and initiate a comprehensive education program.

Of the strategies presented, one of the most important points made was that productivity and efficiency monitoring could have a substantial effect on the financial operations of the health care institution. Common misbeliefs regarding productivity monitoring were identified as were the many characteristics affecting labor performance. Health care management of productivity will require a consciousness of the strategic importance of costs and evolution of the product line approach to resource allocation.

Variable Rate Bonds

As an alternative to issuance of fixed rate long-term tax-exempt bonds, a new debt financing technique, issuance of variable rate bonds, was discussed. Variable rate bonds fuse short-term tax-exempt rates with long-term debt and an adjustable rate. The interest rate is adjusted annually or semiannually and is based off a predetermined index. The bonds can be secured by a letter of credit or the institution's credit rating, and are callable, without premium, every six months. The bonds can be tendered annually or semiannually for payment of principal. If the bonds are tendered, the institution or remarketing agent can adjust the interest rate, within a band around the predetermined index, to one which assures remarketing of the bonds at par. If no bonds are tendered, the interest rate will equal the prevailing index rate. The bonds can be converted to a fixed interest rate without a tender and the long-term rates could be based

upon the letter of credit or the institution's credit rating. Bondholders have an opportunity to exercise their tender before the bonds convert to a conventional long-term fixed interest rate without tenders.

Following the description of this new debt financing structure, a discussion of the advantages and disadvantages of variable rate bonds indicated:

- Advantages

- Low interest rate (while preserving tax-exempt status).
- Permits marketing to investors, trust accounts, and other tax-exempt buyers.
- Adjustable interest rates reduces probability of bonds being tendered.
- Period of exposure to bonds being tendered is restricted to a specific date; however, floating rate bonds expose the institution to tenders at any time on seven day notice.
- Tender bonds secured by letter of credit with A rating or better; low floaters secured by AAA rated or strong AA rated letters of credit.
- Institution is in better position to negotiate price concessions on letter.
- Underwriter's discount on tender bond is competitive to that charged on low floater.
- Flexibility to take advantage of the prospect of lower long-term rates.
- Low borrowing rate permits excellent arbitrage possibilities.

- Disadvantages

- May require long-term (7 to 10 years) letter of credit.
- Borrower subject to volatility of short-term rates.
- Continuing fees for remarketing, resetting interest rate, and standby letter of credit.
- Exposure to unpredictable amounts of bonds being put back to issuer.
- Possibility that a major portion or all of a variable rate issue is tendered and cannot be remarketed.

In order to clarify an understanding of the benefits to be derived from utilizing variable rate bond financing rather than hospital equity to fund construction projects and/or equipment purchases, two alternative analyses were presented to the group. Sources and Uses of Funds Statements and Statements of Revenues and Expenses for Alternative #1 (Equity Financing) and Alternative #2 (Debt Financing) were presented. The analysis of the two alternatives indicated that through investment of equity funds at a higher interest rate and borrowing through variable rate bonds at a lower interest rate, the same "bottom line" could be achieved at a charge per patient day approximately \$20 less than could be achieved through financing with equity.

Credit Enhancements

Hospitals, during the most recent years, have utilized long-term fixed rate tax-exempt bonds to finance construction projects and/or equipment purchases. Currently, available credit enhancements could ease the burden of capital formation for certain institutions. Credit enhancements include: (1) hospital mortgage and bond insurance, (2) letters/lines of credit, and (3) collateralization.

A more detailed discussion of hospital mortgage and bond insurance followed. Various reasons for obtaining insurance were presented, including that it: (1) upgrades the bond rating to as high as AAA by Standard & Poor's Corporation, (2) reduces risk to the investor, (3) generates lower effective interest rate, (4) potentially reduces net interest cost, and (5) improves access to debt financing by lower rated hospitals.

Several financial institutions currently providing insurance were named and other financial institutions are expected to enter the market. The current and projected demand for mortgage and bond insurance is expected to result in insured financings for 1/3 to 1/2 of tax-exempt issues by 1990.

Master Indentures

The final topic of discussion related to the creation of a master indenture; its form, provisions and advantages and disadvantages. A master indenture provides a framework under which a multi-institutional system may finance each of its entities; provides consistency in the terms and covenants of the indebtedness of the various members of the system; and uses the consolidated credit strength of the participants. A master indenture may take various forms, including:

- Merger into one corporation
- Formation of a parent corporation
- Cross-guarantees between affiliates

Selected provisions of a master indenture were identified as were advantages and disadvantages, including:

- Advantages
 - Flexibility - Provides flexibility in developing a corporate structure and permits the transfer of assets among the corporations in the Obligated Group.
 - Addition of New Members - Addition of new entities available at any time.

- Consolidation of Credit Strength - Permits the consolidation of credit strength without the legal consolidation or merger of the entities into one corporation.
- Consistent Covenants - The uniformity of covenants applicable to the various entities enhance managerial efficiency and certainty.
- Marketing Approach - Provides a marketing vehicle in attracting other institutions to become affiliated with the system.

- Disadvantages

- Consolidation of Credit Liability - If any member of the Obligated Group becomes insolvent, the remaining members must meet debt service requirements in order to prevent an event of default.
- Limitations of Withdrawal - There will be restrictions on withdrawal from the Obligated Group.

* * * * *





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